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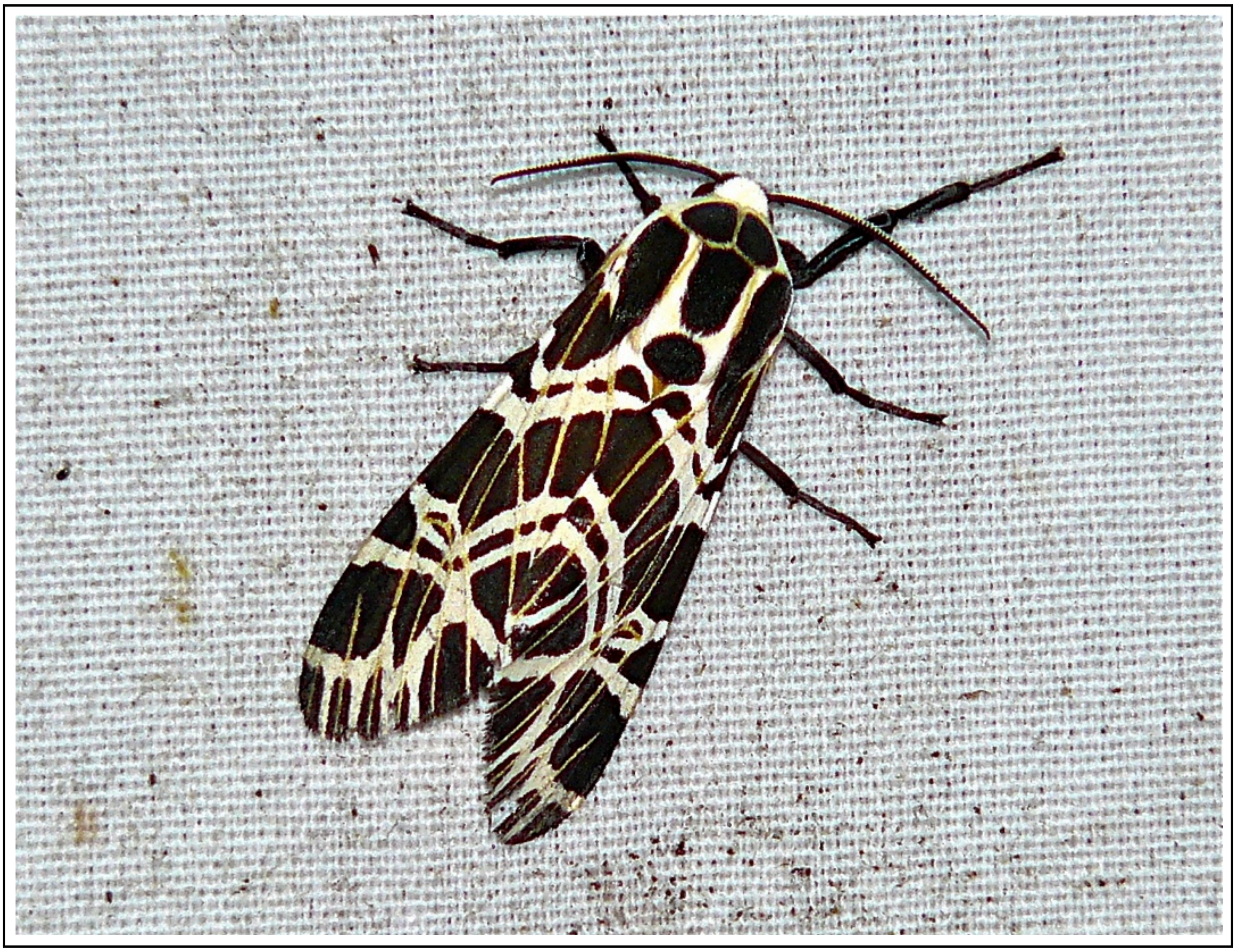

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Generic revision of *Hypercompe* Hübner, [1818] and allied genera with descriptions of new genera and new species (Lepidoptera: Erebidae: Arctiinae)

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Abstract. – The genus *Hypercompe* Hübner, [1818] and its allied genera (*Arachnis* Geyer, 1837 and *Leichosila* Schmidt, 2009) are reviewed at the generic level. Following a distances tree of 1065 barcodes the whole group is now distributed into ten different genera of which six genera (*Hypsocompe, Oxyptera, Stictocompe, Microcompe, Testaptera* and *Fulvocompe* Laguerre **gen. nov.**) and one subgenus (*Pseudocompe* Laguerre **subgen. nov.**) are described as new following a comparative study of the male genitalia. After the classification eight new species are described: *Hypercompe (Hypercompe) pantepui* Laguerre **sp. n.** from Venezuela, *Hypsocompe oaxaca* Laguerre **sp. n.** from Mexico, *Hypsocompe quetzali* Laguerre **sp. n.** from Guatemala, *Hypsocompe nubilus* Laguerre **sp. n.** from Nicaragua, *Microcompe naumanni* Laguerre **sp. n.** from **Guatemala**, *Microcompe minasi* Laguerre **sp. n.** from Guatemala, *Arachnis zacapa* Laguerre **sp. n.** from Guatemala and *Fulvocompe guatemalensis* Laguerre **sp. n.** also from Guatemala. A revision of the Cuban *Hypercompe* spp. completes the study.

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Introduction

Among the many genera found in the Neotropical Arctiinae, *Hypercompe* Hübner, [1818] is one of the most speciose and most complex. Presently it encompasses 87 species (Laguerre & Vincent, 2014) but the classification is largely confused due to the description of forms, variations or aberrations as full species, and several overlooked undescribed species. A close examination of a general tree containing more than 30,000 Neotropical Arctiinae sequences indicates that the genus *Hypercompe* is split into several groups, sometimes mixed with *Arachnis* Geyer, 1837 and *Leichosila* Schmidt, 2009. This complex is polyphyletic and the main purpose of this paper is the review at the genus level of the species presently placed in the genera *Hypercompe*, *Arachnis* and *Leichosila*. At the end of this paper we will include selected species descriptions and analysis of the situation in Cuba in preparation for further revisionary work on the group.

Materials and Methods

Adult genitalia were prepared by boiling abdomens for 15 minutes with 2 pellets of potash in 5 ml of water. After being washed with water and then alcohol, genitalia were photographed in a natural position suspended in 95% alcohol, then types and museum specimens were mounted in Euparal, and remaining specimens were simply stored in glycerol vials. Photos were taken with a CoolPix 4500 Nikon camera attached to a trinocular Nikon stereomicroscope SMZ-10A. For genitalia pictures resolution was enhanced using the focal planes fusion technique (6 to 10 planes were used generally) with the free software CombineZM (Hadley, 2009).

We analyzed short sequences of mitchondrial DNA (COI gene), or DNA barcodes, routinely used for species discrimination and identification (Hebert *et al.* 2003). A project of Neotropical Arctiidae has been initiated within the framework of "ALL-LEPS BARCODE OF LIFE" (International Barcode of Life Project, 2009) which has the objective of archiving DNA barcodes of all known Lepidoptera species. DNA was extracted, amplified and sequenced at the "Canadian Centre for DNA Barcoding" (CCDB) in Guelph, Ontario. Tissue consisted of legs removed from dried voucher specimens in the author's collection. Details of various protocols have been described in Vaglia *et al.*, (2008) and Decaëns & Rougerie (2008). In some cases in the following, I also provide the Barcode Index Number (BIN) which is a unique taxonomic unit that closely corresponds to a species (Ratnasingham & Hebert 2013). In a recent study of 1541 species of Canadian Noctuoidea, Zahiri *et al.* (2014) were able to affirm that BINs are a strong proxy for species, providing a pathway for a rapid, accurate estimation of animal diversity. BIN number can be used to retrieve all data linked to this taxonomic unit.

The sequences were aligned and downloaded from BOLD (Ratnasingham & Hebert 2013) and analyzed using MEGA7 (Kumar, Stecher and Tamura 2016) to build various distance trees either Neighbor-Joining (Saitou & Neil 1987) or Maximum-Likelihood (Aldrich, 1997). Bootstrap values (Felsenstein 1985) were used to estimate branch support: they were calculated in MEGA7 after 1000 random replications. Distance calculations were performed using the Kimura 2-parameter (K2P) method in MEGA7 (Kimura 1980) including all sites, with the pairwise deletion option and assuming both a homogeneous pattern of divergence among lineages and a uniform rate of substitutions among sites.

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The Neighbour-Joining (NJ) distance-tree of 28,000 COI sequences represents 3,192 BINs which number can be compared to the 5,500–6,000 species known at present for the Neotropical Arctiinae. This constitutes a fairly good representation of the subfamily including numerous species representative of all tribes and subtribes from almost all zoogeographic regions.

Barcode which is based on a fast mutating gene (COX1) is normally used for species level differences but it also has value as an indicator of generic groupings. However the barcode is just a short sample of the genome (658 bp, *i.e.*, around 220 amino-acids) and so it is too small to rely on for grouping genera, the best approach being to use multiple genes. Therefore, all generic groups suggested by the barcode trees were assessed in light of the structure of the male genitalia, and genera were accepted and defined based on the affinities between the genitalia of a genus, not just on their barcodes. In the general Neotropical tree of 28,000 COI sequences the genera studied here do not form a monophyletic group but they are scattered across the subfamily, the clusters being interrupted by genera like *Virbia, Paracles, Isia, Estigmene* or *Caribarctia* for instance.

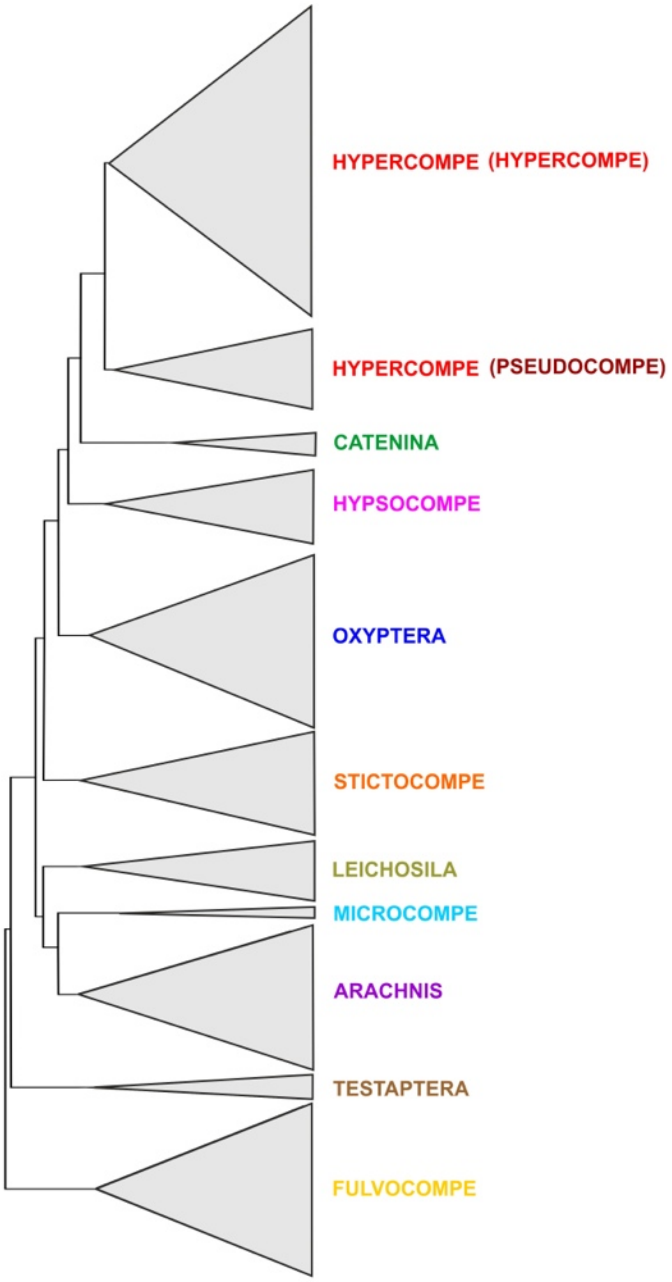
Repository abbreviations are as follows:

MNHN	Muséum National d'Histoire Naturelle, Paris, France.
MNHU	Museum für Naturkunde, Leibniz-Institut für Evolutions- und Biodiversitäts-forschung an der Humboldt Universität, Berlin, Germany.
NHMUK	The Natural History Museum, London, England, United Kingdom.
USNM	National Museum of Natural History, Smithsonian Institution, Washington, D.C., USA.
UVGC	Universidad del Valle Collection of Arthropods, Guatemala City, Guatemala.
YPM	Yale Peabody Museum, New Haven, Connecticut, USA.
ZSM	Zoologische Staatssammlung München, München, Germany.
MLC	Personal collection of Michel Laguerre, 33850 Léognan, France.
BVC	Personal collection of Benoît Vincent, 31130 Quint-Fonsegrives, France.
JAC	Personal collection of Jean Aimé Cerda, Patawa, French Guiana.

Results

The data at the base of this work consist of 1065 COXI gene sequences and 186 male genitalia. The sequences were extracted from the various BOLD projects to which we have access as well, but also from "public" data found in BOLD using the Taxonomy tool with *Hypercompe, Leichosila, Ecpantheria* and *Arachnis* as keywords. This last procedure yields a large set of data mainly from the Nearctic area and the neighbouring area in the northern part of Central America. Of the genitalia dissections, 92% were prepared from specimens held in MLC and 8% from specimens on loan from various institutions but mostly from MNHN in Paris (Collection H. de Toulgoët). It was not possible to sequence or dissect all described species as some entities are extremely difficult to obtain. Nevertheless the tree represents at least 111 different BINs which can be considered as likely to be true species, and this is a reasonable representation of the studied group which presently encompasses about 96 species. In the following lists of species, sequenced species will be highlighted with a "*".

The final tree, as a simplified representation due to its size, is shown on Scheme 1. The height of each triangle is proportional to the number of species-level entities included in each group. In the Annex 1, a full tree is provided in three parts, using the same colors. This tree is a reduced version of the largest tree: only one or two records were kept for each BIN or cluster. The tree displays 11 distinct groups, with inter-group distance of between 6.5 and 14.5 % (see Table 1).



Scheme 1. Simplified NJ tree with initially 1065 COX1 sequences.

The first step is the identification of the *Hypercompe* cluster. The type species of the genus is *Phalaena icasia* Cramer, [1777], by subsequent designation by Evans & China (1966), in the Opinion 789 of the *Bulletin of Zoological Nomenclature* (see. p. 213). *Phalaena icasia* Cramer, [1777] was described based on a male from Suriname but the exact identity of this species is rather problematic (see Fig. 1E). The type, which is lost as the majority of the Cramer's types, is allegedly claimed to originate from Suriname but, up to now, no similar specimen has been collected in the Guianas Shield. The only close species found in this area is *Phalaena eridanus* also described by Cramer one year earlier based on a female (Cramer, [1776], see Fig. 1G).

This is an extreme whitish form sometimes found in French Guiana where the common and usual form is white with a weak grayish pattern of lines of circles or ovals (see Fig. 2C). The male of this species can be either totally white as in Cramer's

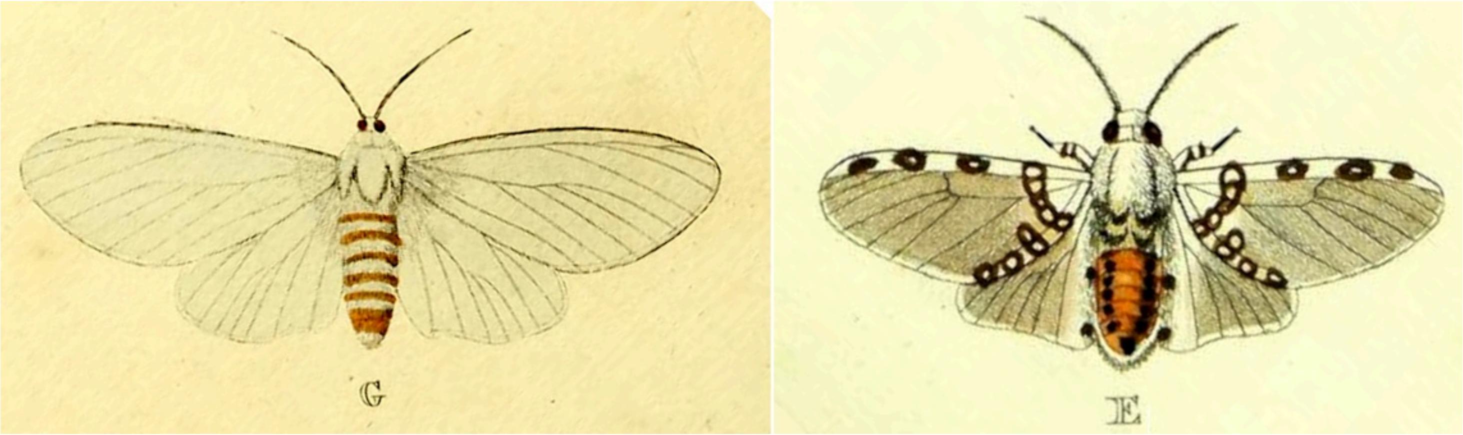


Fig. **1**. Original pictures of Cramer. **G**. *Phalaena eridanus* Cramer, [1776]. **E**. *Phalaena icasia* Cramer, [1777].

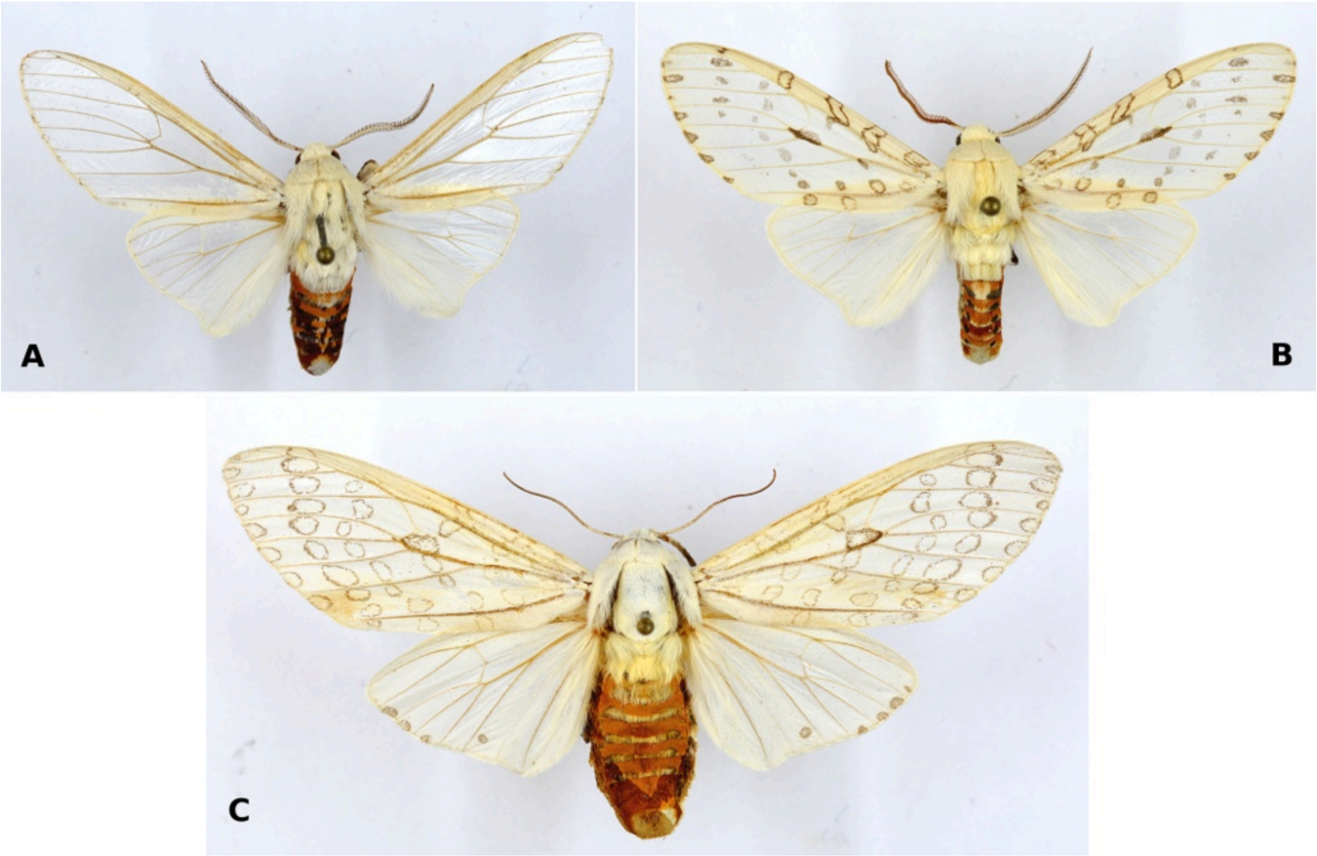


Fig. **2**. *Hypercompe eridanus* from French Guiana. **A**. Male white morph. **B**. Male usual morph. **C**. Female usual morph.

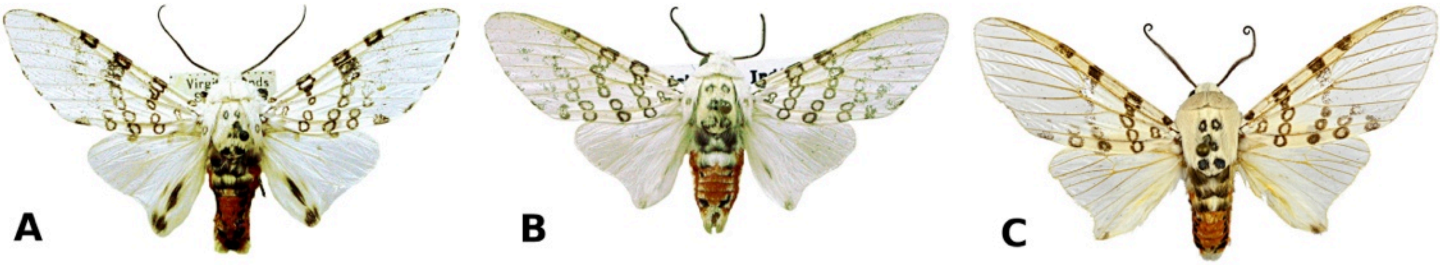


Fig. **3**. *Hypercompe icasia* from the Lesser Antilles islands. **A**. Virgin Islands. **B**. Nevis Island. **C**. Martinique Island.

figure or similar to the usual female form (see Fig. 2A-B).

However, males similar to Cramer's figure for *icasia* (Fig. 1E) are commonly found in the Lesser Antilles from the Virgin Islands, to Nevis and the French Antilles (see Fig. 3) and at the time of Cramer even if it were said that the type originated from Suriname there is a possibility that *icasia* originated in fact from an island of a Caribbean Sea.

So we have at least two possibilities: either the type of *icasia* is really from Suriname and in this case it is the male of *eridanus* (which would have priority) or the type of *icasia* is a separate species from the Lesser Antilles and it would have priority over all the names from this region used after 1777, i.e. *simplex* (Walker, 1855) described from Nevis Island and *guadulpensis* (Boidsuval, 1881) described from Guadeloupe Island. In the first hypothesis, *simplex* (Walker, 1855) will have priority for the species found in the Lesser Antilles. Due to the similarity of the specimens collected in the Lesser Antilles with the type of *icasia*, in this work we will follow the second hypothesis and apply the name *icasia* to the entity found in the Lesser Antilles.

Fortunately, a specimen from Martinique (Fig. 3C) has been sequenced along with several specimens of *eridanus* from French Guiana and all these specimens nicely align in the same cluster which is in fact the red cluster on top of the NJ tree (see Fig. Annex 1a). So it is now possible to identify this cluster with the genus *Hypercompe* without any ambiguity irrespective of the exact identity of *icasia*. Moreover, the sequence obtained from Martinique Island aligns alone at a distance of 2.8 % from *H. eridanus* from French Guiana and far from all entities of the so-called *Hypercompe icasia* complex. After comparison of the male genitalia, this confirms that *icasia* is a true species which inhabits the Lesser Antilles from at least the Virgin Islands to Martinique. According to Forbes (1930, p. 38) this species has invaded Puerto Rico and we have examined specimens from this island in MNHN and consider them conspecific.

Genus ***Hypercompe*** Hübner, [1819]

Type species. – *Phalaena icasia* Cramer, [1777], by subsequent designation (see above).

This is clearly the largest group with about 50 % of all presently known species. It is a genus with medium to large, robust to very robust (especially females) species with the characteristic "*Hypercompe*" pattern (see Plate 1). The sexual dimorphism is moderate, females being generally larger and darker with rounder hindwings. The male genitalia are readily characterized by the almost total absence of valvae which are reduced to a tiny digitate process. The pointed and triangular uncus is massive and strongly sclerotized. The saccus is generally absent. The aedeagus is massive and strongly sclerotized. Adominal segment VIII is well developed and encircles the genital capsule, the tergite VIII is often shaped as a large rounded triangle. The whole genus has a huge distribution inhabiting the whole Neotropical and Nearctic areas, including the Caribbean area, as far north as Ontario in Canada (*H. scribonia* (Stoll, 1790)) down to Buenos Aires Province in Argentina. The group is very badly in need of revision especially the so-called "*icasia*" group. In the distance NJ tree this group appears clearly split into two sub-groups with a minimum inter-group distance of 6.6 %. The main problem is that we were unable to find a discriminating parameter between these two sub-groups: the habitus is similar and there is no difference in the male genitalia. For these reasons we refrain from creating a new genus and we will simply split the genus into two sub-genera: *Hypercompe* for the large red cluster on top of the NJ tree and *Pseudocompe* **subgen. nov**. for the small dark-red cluster just below.

Subgenus ***Hypercompe*** Hübner, [1819]
(see Plate 1 for some examples and Fig. 4 for genitalia)

This sub-genus is by far the larger of the two and contains species from the whole general distribution from Canada to Argentina, including the Caribbean Sea. A new species originating from the Gran Sabana area, Venezuela, is described as new below.

Hypercompe (*Hypercompe*) *albicornis* (Grote, [1866])*
Hypercompe (*Hypercompe*) *albiscripta* (Druce, 1901)
Hypercompe (*Hypercompe*) *alpha* (Oberthür, 1881)
Hypercompe (*Hypercompe*) *andensis* (Rothschild, 1922)
Hypercompe (*Hypercompe*) *annexa* (Oberthür, 1881)
Hypercompe (*Hypercompe*) *anomala* (Burmeister, 1883)
Hypercompe (*Hypercompe*) *aramis* (Oberthür, 1881)
Hypercompe (*Hypercompe*) *bolivar* (Oberthür, 1881)
Hypercompe (*Hypercompe*) *burmeisteri* (Rothschild, 1910)*
Hypercompe (*Hypercompe*) *caudata* (Walker, 1855)*
Hypercompe (*Hypercompe*) *chelifer* (Forbes, 1929)
Hypercompe (*Hypercompe*) *columbina* (Oberthür, 1881)

	Oxyptera	***Hyper.***	***Stictoc.***	***Pseudo.***	***Hypso.***	***Arachnis***	***Fulvoc.***	***Leichosila***	***Microc.***	***Testap.***
Hypercompe	9.4									
Stictocompe	11.9	10.3								
Pseudocompe	9.7	6.6	10.5							
Hypsocompe	11.8	10.3	12.8	10.4						
Arachnis	10.3	9.7	10.4	9.7	11.2					
Fulvocompe	14.0	13.1	14.6	13.2	14.2	13.1				
Leichosila	10.7	9.6	11.2	10.0	11.9	9.3	13.5			
Microcompe	12.2	11.0	11.8	11.6	12.9	10.4	14.5	11.6		
Testaptera	12.9	11.5	13.2	11.3	12.8	12.0	14.7	12.2	14.1	
Catenina	8.0	6.6	9.5	6.5	9.5	8.5	12.2	8.2	10.3	10.8

Table 1. Minimum intergeneric distances in % between the different groups.

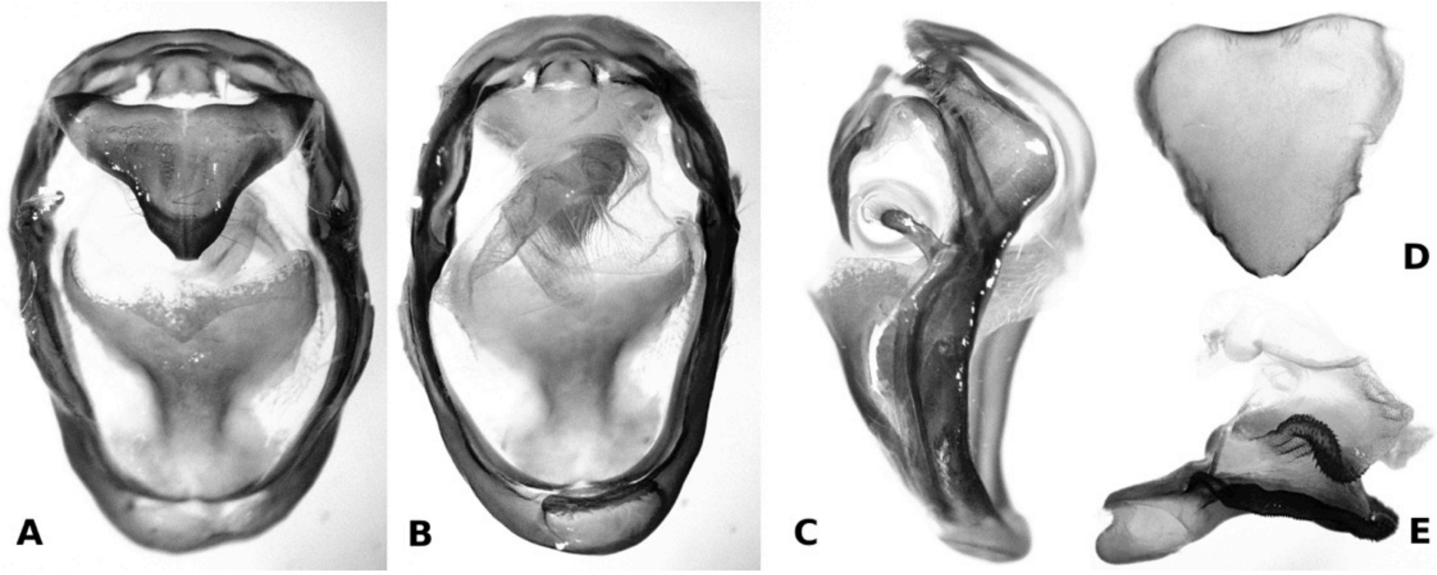


Fig. **4**. Male genitalia of *Hypercompe icasia* (Cramer, [1777]) from Dominica Island. **A**. Ventral view. **B**. Dorsal view. **C**. Lateral view. **D**. Tergite VIII. **E**. Aedeagus.

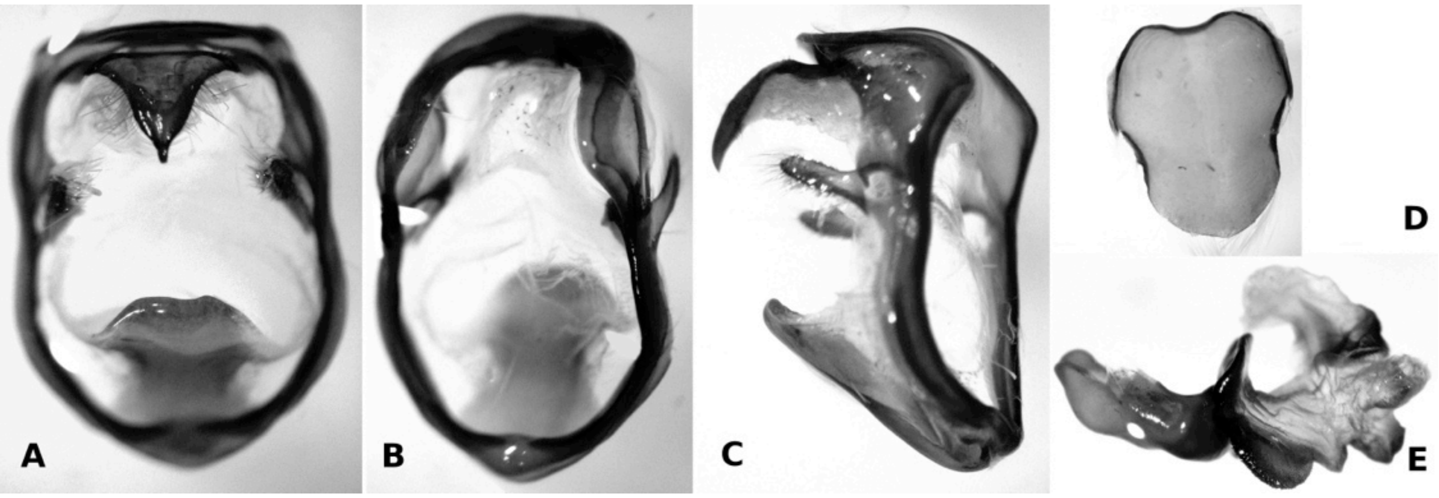


Fig. **5**. Male genitalia of *Hypercompe* (*Pseudocompe*) *cunigunda* (Sroll, [1781]) from French Guiana. **A**. Ventral view. **B**. Dorsal view. **C**. Lateral view. **D**. Tergite VIII. **E**. Aedeagus.

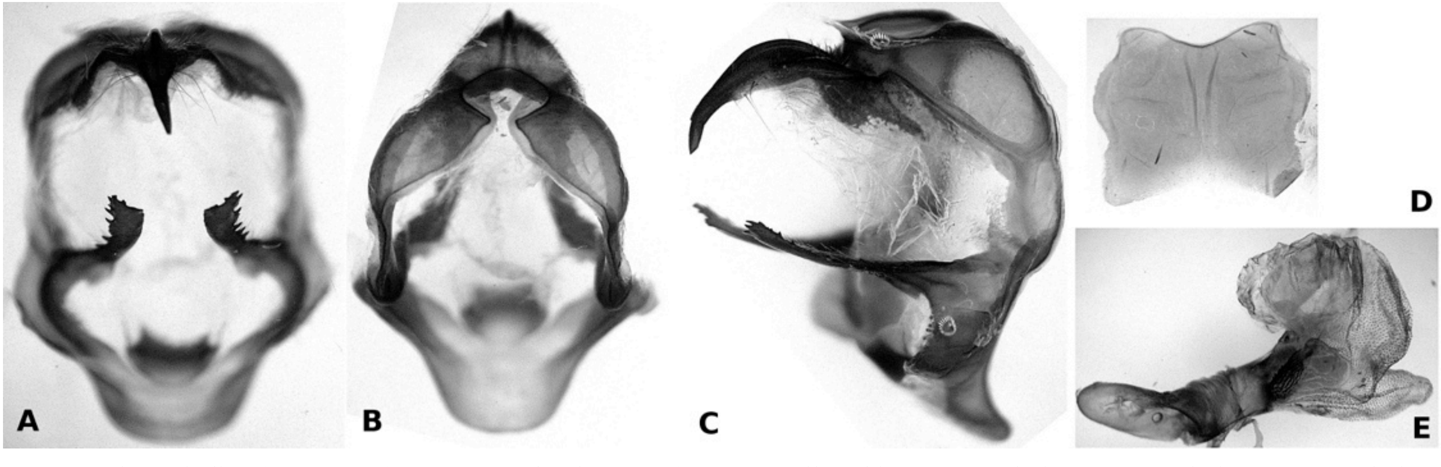


Fig. **6**. Male genitalia of *Catenina heterogena* (Oberthür, 1881) from Brazil, Bahia. **A**. Ventral view. **B**. Dorsal view. **C**. Lateral view. **D**. Tergite VIII. **E**. Aedeagus.

Hypercompe (*Hypercompe*) *cyaneicornis* (Grote, 1867) **bona species**, **stat**. **rev**. (see below)*
Hypercompe (*Hypercompe*) *cretacea* (Dognin, 1912)
Hypercompe (*Hypercompe*) *decora* (Walker, 1855)*
Hypercompe (*Hypercompe*) *deflorata* (Fabricius, 1775)*
Hypercompe (*Hypercompe*) *detecta* (Oberthür, 1881)*
Hypercompe (*Hypercompe*) *detectiva* (Oberthür, 1881)
Hypercompe (*Hypercompe*) *distans* (Oberthür, 1881)
Hypercompe (*Hypercompe*) *dognini* (Rothschild, 1910)*
Hypercompe (*Hypercompe*) *eridanus* (Cramer, [1776])*
Hypercompe (*Hypercompe*) *gaujoni* (Dognin, 1889)*
Hypercompe (*Hypercompe*) *icasia* (Cramer, [1777])*
Hypercompe (*Hypercompe*) *indecisa* (Walker, 1855)*
Hypercompe (*Hypercompe*) *jaguarina* (Schaus, 1921)*
Hypercompe (*Hypercompe*) *kinkelini* (Burmeister, 1879)*
Hypercompe (*Hypercompe*) *melanoleuca* (Rothschild, 1910)
Hypercompe (*Hypercompe*) *muzina* (Oberthür, 1881)*
Hypercompe (*Hypercompe*) *nigriplaga* (Walker, 1855)*
Hypercompe (*Hypercompe*) *obtecta* (Dognin, 1907)*
Hypercompe (*Hypercompe*) *ocularia* (Fabricius, 1775)
Hypercompe (*Hypercompe*) *pantepui* Laguerre, 2023 **sp**. **nov**. (see below)*
Hypercompe (*Hypercompe*) *perplexa* (Schaus, 1911)*
Hypercompe (*Hypercompe*) *peruvensis* (Hampson, 1901)*
Hypercompe (*Hypercompe*) *quitensis* (Oberthür, 1881)
Hypercompe (*Hypercompe*) *robusta* (Dognin, 1889)*
Hypercompe (*Hypercompe*) *scribonia* (Stoll, 1790)*
Hypercompe (*Hypercompe*) *trinitatis* (Rothschild, 1910)*

Subgenus ***Pseudocompe*** Laguerre, 2023 **subgen**. **nov**.

ZooBank: https://zoobank.org/BCB2938F-7C70-437A-BC3B-4465A77EFCF6

(see Plate 2 for some examples and Fig. 5 for genitalia)

Type species. – *Phalaena cunigunda* Stoll, [1781] by present designation.

Etymology. – A name built into two parts: *Pseudo* which means false, wrong and *compe* which is the second half of the word *Hypercompe*.

This small sub-genus contains presently only half a dozen of species around the well known *Hypercompe cunigunda* from French Guiana. The distribution is now restricted to mainland South America only (at least in the present acceptation of the group). From the NJ tree (Annex 1a) it is obvious that several species are awaiting description and the final number of species will surely increase significantly.

Hypercompe (Pseudocompe) abdominalis (Walker, [1865])* **comb**. **nov**.
Hypercompe (Pseudocompe) campinasa (Schaus, 1938) **comb**. **nov**.
Hypercompe (Pseudocompe) cunigunda (Stoll, [1781])* **comb**. **nov**.
Hypercompe (Pseudocompe) dubia (Rothschild, 1922) **comb**. **nov**.
Hypercompe (Pseudocompe) mielkei Watson & Goodger, 1986* **comb**. **nov**.
Hypercompe (Pseudocompe) orbiculata (Oberthür, 1881) **comb**. **nov**.

Genus ***Catenina*** Burmeister, 1883

(see Plate 3 for some examples and Fig. 6 for genitalia)

Type species. – *Ecpantheria heterogena* Oberthür, 1881, by monotypy.

Below the large *Hypercompe* genus, it is possible to find the small green cluster. Its minimum intergeneric distances are moderate (6.5 % with *Pseudocompe*) to large (12.2 % with *Fulvocompe*). With the two sub-genera of *Hypercompe* the minimum distance is short (6.5 and 6.6 % respectively), *i.e.,* exactly the same distance existing between the two sub-genera of *Hypercompe*. Nevertheless this group is well characterized by pectinate male antennae and divergent male genitalia (especially the valvae shape). Moreover this group is narrowly restricted to South-East Brazil, an area with a high endemicity ratio. For all these reasons we consider this group at a full genus level and we chose the name *Catenina* Burmeister, 1883. Burmeister has created this genus in his review of the genus *Ecpantheria* (a synonym of *Hypercompe*) (Burmeister, 1983 p. 42) for the sole *Ecpantheria heterogena* alone. In the NJ distance tree, this species appears together with *Hypercompe mus* (Oberthür, 1881) and *Hypercompe hambletoni* (Schaus, 1938). To these species it is possible to add *Hypercompe kennedyi* (Rothschild, 1910), *Hypercompe castronis* (Strand, 1919) and *Hypercompe contexta* (Oberthür, 1881) which is, according to Forbes, the normal female of *H. heterogena* (Forbes, 1929 p. 318). Presently it is not clear if all these names apply to full species or simply to various morphs of a reduced number of entities. Externally this group is largely reminiscent of the genus *Hypercompe*. Nevertheless the male genitalia show noticeable differences. The valvae are present as outwardly pointing long, narrow and dentate or crenulate blades. The uncus is narrow, long and sharply pointed downwards. As in *Hypercompe* the segment VIII encircles the genital capsule and the aedeagus is massive but less sclerotized than in *Hypercompe*.

So we currently have:

Catenina castronis (Strand, 1919) **comb**. **nov**.
Catenina hambletoni (Schaus, 1938)* **comb**. **nov**.
Catenina heterogena Oberthür, 1881* **comb**. **reinst**.
= *Catenina contexta* (Oberthür, 1881) **comb**. **nov**., **stat**. **reinst**.
Catenina kennedyi (Rothschild, 1910) **comb**. **nov**.
Catenina mus (Oberthür, 1881)* **comb**. **nov**.

Genus ***Hypsocompe*** Laguerre, 2023 **gen**. **nov**.

ZooBank: https://zoobank.org/A5C250E3-F96B-421F-A122-6A505369B275

(see Plate 4 for some examples and Fig. 7 for genitalia)

Type species. – *Leucarctia permaculata* Packard, 1872 by present designation.

Etymology. – A name built into two parts: *Hypso* which means height or altitude and *compe* which is the second half of the word *Hypercompe*.

A genus of small black and white species inhabiting an area going from the South of the United States to the mountain ranges in the western part of Nicaragua always at medium to high altitude (1400 m - 2600 m). The sexual dimorphism is moderate, females being generally larger with darker hindwings. The females are not common and are unknown for many species. In the distance NJ tree, this genus appears far from almost all other genera, with minimum distances from 9.5 % to 14.2 %, the closest group being the genus *Catenina*. The male genitalia are characterized by small, lanceolate valvae, generally not reaching level with the base of uncus. The uncus is short, strongly sclerotized and hook-shaped. The juxta is prominent. Below the uncus, there is generally a granulose and strongly sclerotized process with a diagnostic shape. A saccus is present. The aedeagus is not strongly sclerotized but displays a wide scobinate vesica. Caecum penis always present. As in the preceding genera, segment VIII encircles the genital capsule but it is weakly sclerotized.

Hypsocompe amulaensis (Druce, 1889) **comb**. **nov**.
Hypsocompe andromela (Dyar, 1909) **comb**. **nov**.
Hypsocompe atra (Oberthür, 1881) **comb**. **nov**.
Hypsocompe extrema (Walker, 1855)* **comb**. **nov**.
Hypsocompe nubilus Laguerre, 2023 **sp**. **nov**. (see below)*
Hypsocompe oaxaca Laguerre, 2023 **sp**. **nov**. (see below)*
Hypsocompe permaculata (Packard, 1872)* **comb**. **nov**.
Hypsocompe quetzali Laguerre, 2023 **sp**. **nov**. (see below)*
Hypsocompe tenebra (Schaus, 1894)* **comb**. **nov**.

Genus ***Oxyptera*** Laguerre, 2023 **gen**. **nov**.

ZooBank: https://zoobank.org/EB0BDB19-E638-4DAE-9B40-60150D84E891

(see Plate 5 for some examples and Fig. 8 for genitalia)

Type species. – *Ecpantheria steinbachi* Rothschild, 1910 by present designation.

Etymology. – A name built into two parts: from the Greek *Oxy* which means acid but also acute by reference to the male anal

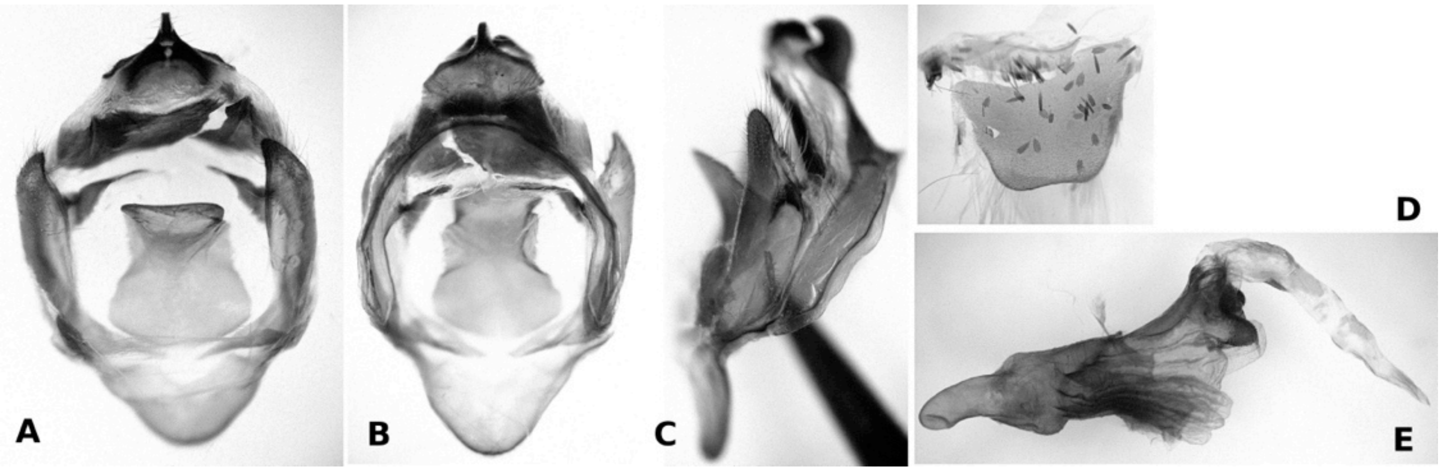


Fig. **7**. Male genitalia of *Hypsocompe permaculata* (Packard, 1872) from United States, Arizona. **A**. Ventral view. **B**. Dorsal view. **C**. Lateral view. **D**. Tergite VIII. **E**. Aedeagus.

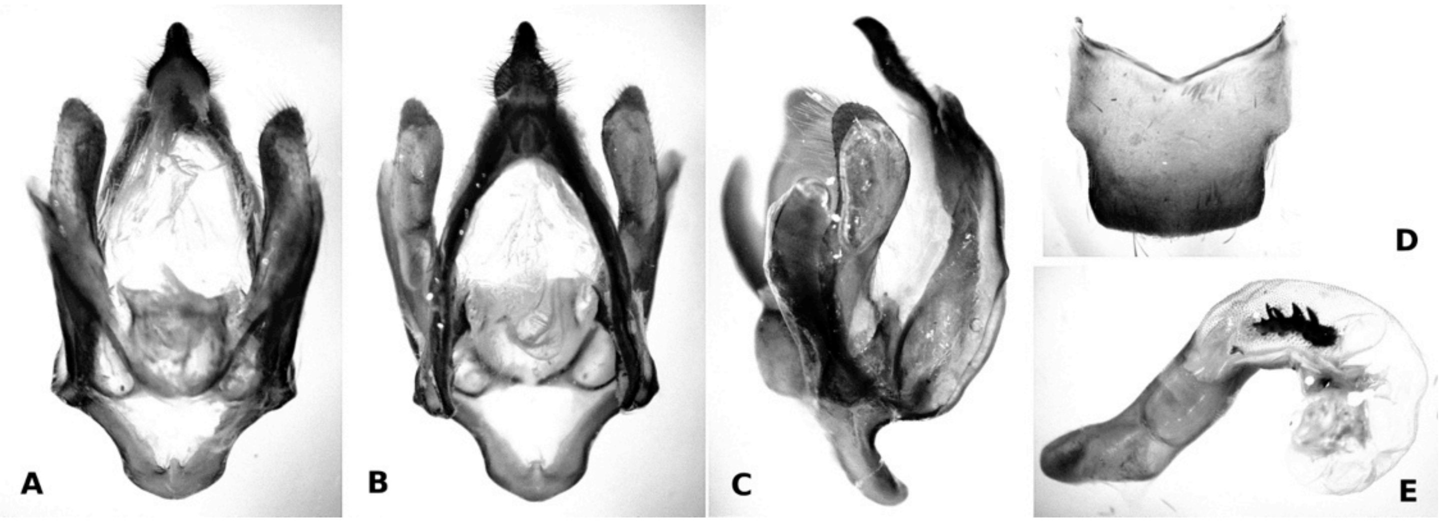


Fig. **8**. Male genitalia of *Oxyptera steinbachi* (Rothschild, 1910) from Peru, Junin. **A**. Ventral view. **B**. Dorsal view. **C**. Lateral view. **D**. Tergite VIII. **E**. Aedeagus.

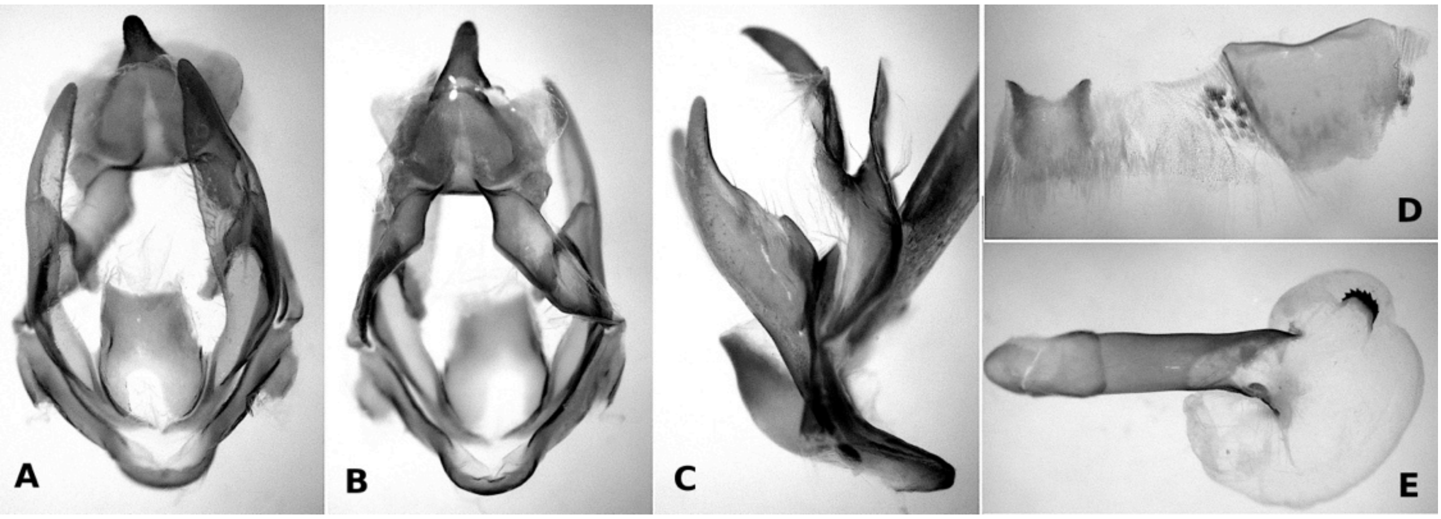


Fig. **9**. Male genitalia of *Stictocompe oslari* (Rothschild, 1910) from Mexico, San Luis Potosi. **A**. Ventral view. **B**. Dorsal view. **C**. Lateral view. **D**. Segment VIII. **E**. Aedeagus.

border and *ptera* (from the Greek *pteron*) which means wing.

A group of a dozen or so of attractive, medium to large and robust to very robust species (especially females). Their habitus is characterized by the frequent presence of a yellow or orange coloration on wings and the presence in male hindwings of an anal border largely protruding as a sword blade. This protrusion is absent in females which are larger with rounder and darker hindwings. Despite similarity with *Hypercompe* and *Catenina*, the minimum intergeneric distances are medium to large (8.0 to 14.0 %), the closest genus being *Catenina*. In this group and despite similar habitus and genitalia, the species *Oxyptera ochreator* (= *Hypercompe euripides*) is rather problematic. Depending on the method used (NJ or ML) its position within the tree is rather variable. Its absence in the analysis decreases largely the differences between the trees obtained with different methods. Nevertheless using the NJ method it clusters perfectly within the genus *Oxyptera* which exhibits similar habitus and male genitalia and for these reasons we maintain this species in this group but with some doubts. On an other hand the pair *cotyora/unilineata* appears rather border line aligning between *Hypsocompe* and *Oxyptera*. The distances of this pair with these two groups would maybe necessitate the creation of a new genus. Nevertheless considering the similarity of the habitus and until more data will become available we prefer to consider these two species within the the genus *Oxyptera*. The male genitalia are characterized by a long and flat pointed uncus. The valvae are moderately long, generally reaching the base of uncus. They display a rounded elongated translucent sacculus covered with hairs. The saccus is present, polygonal and slightly upturned dorsally. The aedeagus is short cylindrical with caecum penis present. The cylindrical vesica is generally adorned laterally with a heavily sclerotized bar of long and sharp teeth. As in the preceding genera, segment VIII encircles the genital capsule but it is weakly sclerotized.

Oxyptera brasiliensis (Oberthür, 1881)* **comb**. **nov**.
Oxyptera cotyora (Druce, 1884)* **comb**. **nov**.
Oxyptera ecpantherioides (Rothschild, 1935)* **comb**. **nov**.
Oxyptera guyanensis (Laguerre, 2009)* **comb**. **nov**.
Oxyptera laeta (Walker, 1855)* **comb**. **nov**.
Oxyptera leucarctioides (Grote & Robinson, 1867)* **comb**. **nov**.
Oxyptera magdalenae (Oberthür, 1881)* **comb**. **nov**.
Oxyptera ochreator (Felder & Rogenhofer, 1874)* **comb**. **nov**.
Oxyptera persephone (Tessmann, 1928) **comb**. **nov**.
Oxyptera praeclara (Oberthür, 1881) **comb**. **nov**.
Oxyptera steinbachi (Rothschild, 1910)* **comb**. **nov**.
Oxyptera unilineata (Gaede, 1928)* **comb**. **nov**.

Genus ***Stictocompe*** Laguerre, 2023 **gen**. **nov**.

ZooBank: https://zoobank.org/5BA123EA-AB3B-4C46-A04B-ACFF149BEA28

(see Plate 6 for some examples and Fig. 9 for genitalia)

Type species. – *Ecpantheria oslari* Rothschild, 1910 by present designation.

Etymology. – A name built into two parts: from the Greek *stiktos* which means spotted and *compe* which is the second half of the word *Hypercompe*.

A small group of small species, generally white with a dense pattern of black lines and circles, found from the south of the United States to the northern part of Venezuela. The inter-genera minimum distances are large to very large (from 9.5 % to 14.6 %), the closest group being the genus *Catenina*. The distance NJ tree reveals more entities than available names especially in the area going from the south of USA to the north of Mexico City. The male genitalia are slightly sclerotized. The uncus is short and narrow, inflated laterally. The valvae are triangular, short, hardly reaching the base of uncus, with the extremity bent dorsally. A small saccus is present. The aedeagus is cylindrical, straight and the multilobed vesica shows at least one sclerotized spinose plate. As in the preceding genera, segment VIII encircles the genital capsule but it is small and weakly sclerotized.

Stictocompe albescens (Hampson, 1901)* **comb**. **nov**.
Stictocompe cermelii (Watson, 1977) **comb**. **nov**.
Stictocompe confusa (Druce, 1884)* **comb**. **nov**.
Stictocompe oslari (Rothschild, 1910)* **comb**. **nov**.
Stictocompe suffusa (Schaus, 1889)* **comb**. **nov**.

Genus ***Leichosila*** Schmidt, 2009

(for some examples see Schmidt, 2009)

Type species. – *Leichosila talamanca* Schmidt, 2009, by original designation.

A recently described genus of small species inhabiting the high altitudes in the mountains located at the Costa-Rica/Panama border. The general pattern consists in ochreous bands on a whitish grey background. The genus contains presently only two described species but several entities are awaiting description as can be seen in the provided tree. The inter-genera minimum distances are large to very large (from 8.2 % to 13.5 %), the closest group being the genus *Catenina*. The male genitalia are characterized by long and narrow valvae, very broad and shallow juxta, aedeagus stout with a ventrally curved caecum and a globose slightly scobinate vesica (see Schmidt, 2009 for details).

Leichosila talamanca Schmidt, 2009*
Leichosila wagneri Schmidt, 2009

Genus ***Microcompe*** Laguerre, 2023 **gen**. **nov**.

ZooBank: https://zoobank.org/7ACF5735-6BBA-47AF-B8A2-9F7627A804A8

(for some examples see descriptions below and Fig. 10 for genitalia)

Type species. – *Microcompe naumanni* Laguerre, 2023, **sp**. **nov**., by original designation.

Etymology. – A name built into two parts: from the Greek *Micro* which means small and *compe* which is the second half of the word *Hypercompe*.

A genus of very small to tiny and very hairy species, inhabiting the very high altitudes from 2,500 m up to 3,750 m in the mountains of Guatemala either near the Mexican border (Cuchumatanes Mountains) or on both sides of the Central Range and the Sierra de las Minas. The males and females display red hairs at the base of the legs. In the distance NJ tree, this group is one of the most remote at minimum distances from 10.3 to 14.5 % to all other groups. Despite a habitus and a distribution similar to the genus *Hypsocompe*, the distance between the two groups is high (12.9 % at minimum) confirming that they are quite unrelated. A very limited number of specimens are presently known and more species are very likely awaiting description. The genus is based on two recently discovered new species which are described below. Male genitalia very tiny and not strongly sclerotized. Uncus long and triangular, slightly undulate laterally with a tip shaped as a bird's beak. Valvae small, elongated with a rounded tip. Transtilla present. Saccus very small. Aedeagus small, narrow and cylindrical with a very slightly scobinate simple vesica. As in the preceding genera, segment VIII encircles the genital capsule but it is weakly sclerotized.

Microcompe minasi Laguerre, 2023 **sp**. **nov**. (see below)*
Microcompe naumanni Laguerre, 2023 **sp**. **nov**. (see below)*

Genus ***Arachnis*** Geyer, 1837

(see Plate 7 for some examples and Fig. 11 for genitalia)

Type species. – *Phalaena aulaea* Geyer, 1837, by monotypy.

This well-known genus, here as the purple cluster (see Fig. Annex 3), is entirely valid and homogeneous. Whatever the method used (NJ or ML) the group appears split into two subgroups : *picta/citra* on one

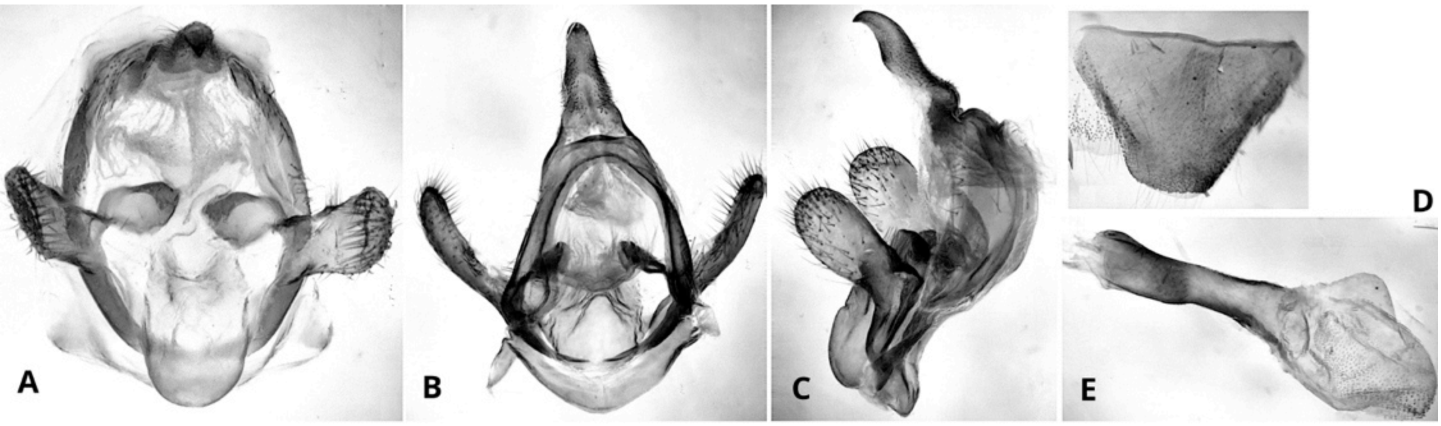


Fig. **10**. Male genitalia of *Microcompe naumanni* Laguerre, 2023 from Guatemala, Quetzaltenango, ML2886. **A**. Ventral view. **B**. Dorsal view. **C**. Lateral view. **D**. Tergite VIII. **E**. Aedeagus.

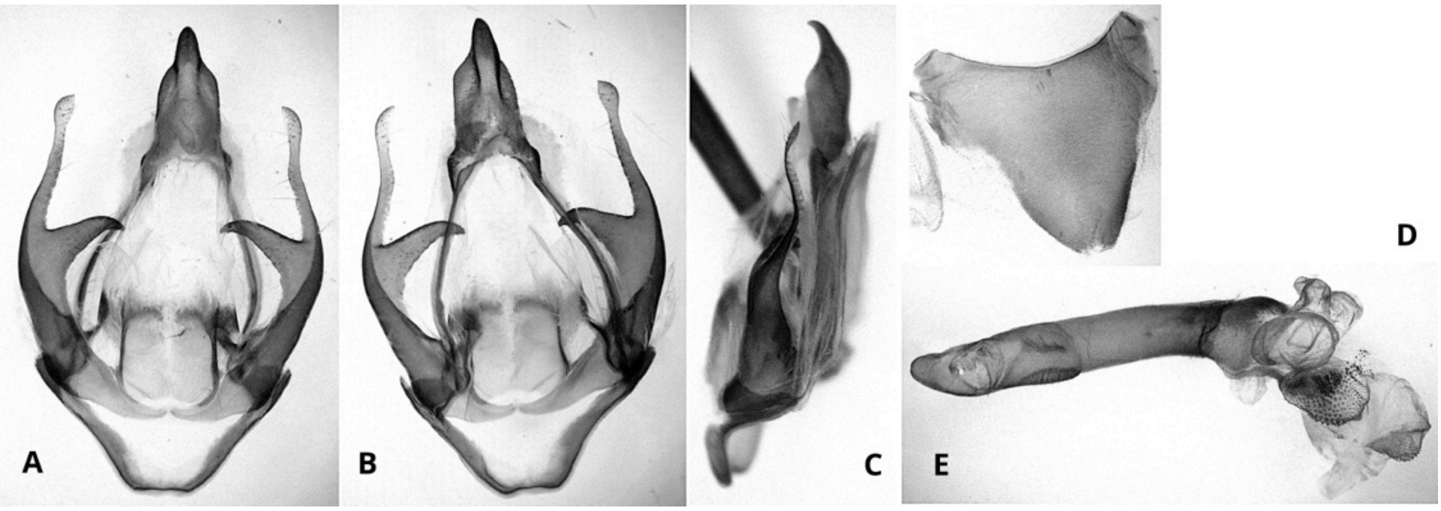


Fig. **11**. Male genitalia of *Arachnis* cf. *aulaea* (Geyer, 1837) from Mexico, San Luis Potosi. **A**. Ventral view. **B**. Dorsal view. **C**. Lateral view. **D**. Tergite VIII. **E**. Aedeagus.

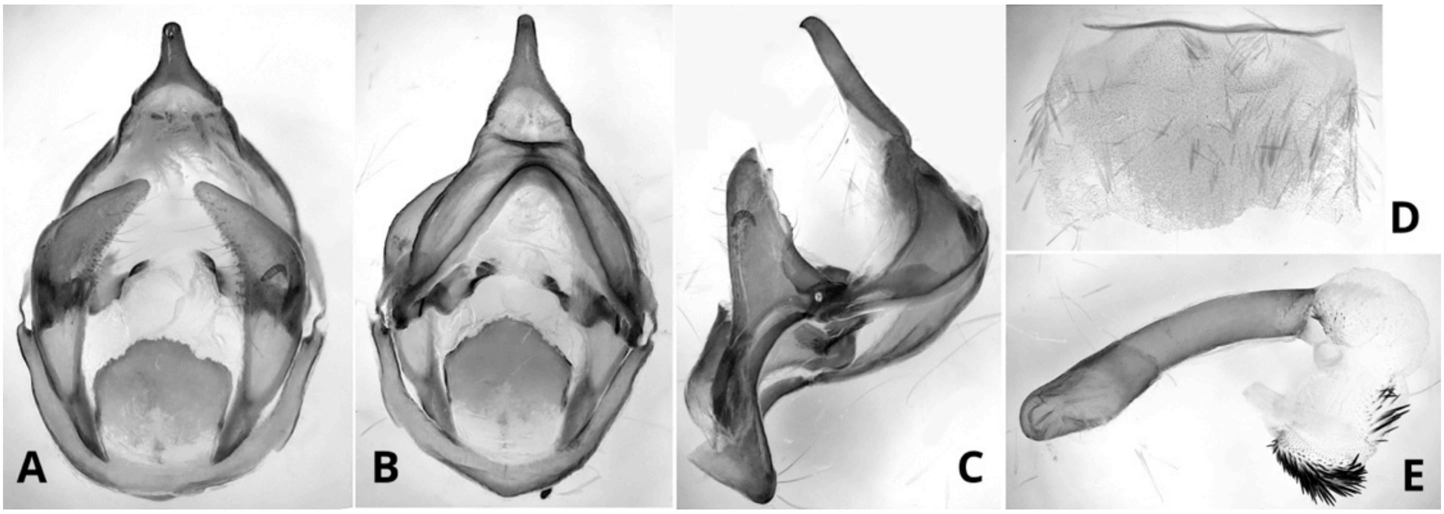


Fig. **12**. Male genitalia of *Testaptera testacea* (Rothschild, 1909) from Bolivia, Amazonas. **A**. Ventral view. **B**. Dorsal view. **C**. Lateral view. **D**. Tergite VIII. **E**. Aedeagus.

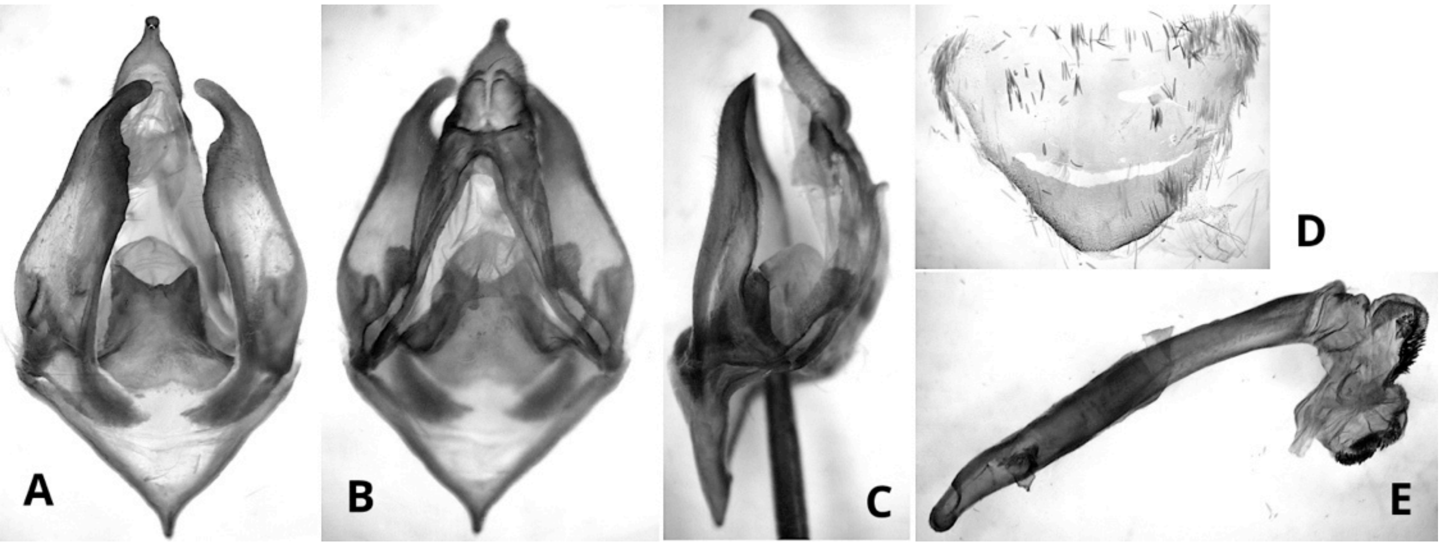


Fig. **13**. Male genitalia of *Fulvocompe ockendeni* (Rothschild, 1909) from Bolivia, La Paz. **A**. Ventral view. **B**. Dorsal view. **C**. Lateral view. **D**. Tergite VIII. **E**. Aedeagus.

side and *aulaea* on the other side, *zuni* and *nedyma* being slightly border line in each case. The whole group inhabits an area going from the south of United States to the mountain ranges in Guatemala at medium to high altitudes (1450-2300 m). It is clear is that either *A. picta* and *A. aulaea* are both a complex of species with respectively 7.6 % and 10.0 % maximum intraspecific distances, each subgroup showing several homogeneous clusters which can be considered as true species. This group is at moderate to large distance from all other groups (from 8.5 to 13.1 %), the closest group being *Catenina*. Among the several entities found for *A. aulaea*, one very remote form from Guatemala will be described as new below. The male genitalia are characterized by a long and narrow uncus with a curved pointed tip. The moderately sclerotized valvae are narrow and bifid. One very narrow process with a spatulate tip reachs at least the base of uncus and one lateral pointed process roughly triangular is pointing inwards at about 90°. Subrectangular saccus present. Aedeagus narrow and cylindrical with a scobinate vesica. As in the preceding genera, segment VIII encircles the genital capsule with tergite VIII often shaped as a triangle.

Arachnis aulaea (Geyer, 1837)*
Arachnis bituminosa Seitz, 1920
Arachnis dilecta (Boisduval, 1870)
Arachnis martina Druce, 1897
Arachnis mishma Druce, 1897
Arachnis nedyma Franclemont, 1966*
Arachnis picta Packard, 1864*
Arachnis zacapa Laguerre, 2023 **sp**. **nov**. (see below)*
Arachnis zuni Neumoegen, 1890

Genus ***Testaptera*** Laguerre, 2023 **gen**. **nov**.

ZooBank: https://zoobank.org/D2631810-AB9F-42DA-902C-DC21D689D2F7
(see Plate 8 for some examples and Fig. 12 for genitalia)

Type species. – *Automolis testacea* Rothschild, 1909 by original designation.

Etymology. – A name built into two parts: from the Latin *testaceus* which means terracotta by reference to the general color and *ptera* (from the Greek *pteron*) which means wing.

A small group of small, hairy and dull brown species found essentially in the Andes. Their habitus is largely different from the genus *Hypercompe* and in the distance tree the inter-groups minimum distances are large from 10.8 to 14.7 %, the closest group being the genus *Fulvocompe*. The male genitalia are characterized by a long, flat and narrowly triangular uncus. Valvae narrow, reaching at maximum the base of uncus and strongly bent inwards. Juxta massive. Saccus short and slightly pointed. Aedeagus as a narrow and slightly bent cylinder, caecum penis present. Vesica cylindrical bent at 180° and covered by several patches of small cornuti. As in the preceding genera, segment VIII encircles the genital capsule but it is weakly sclerotized and almost pentagonal. The group is badly in need of revision as a majority of the included species have been described from the same locality.

Testaptera fuscescens (Rothschild, 1917) **comb**. **nov**.
Testaptera pertestacea (Rothschild, 1935)* **comb**. **nov**.
Testaptera testacea (Rothschild, 1909)* **comb**. **nov**.
Testaptera turruptianoides (Rothschild, 1910)* **comb**. **nov**.

Genus ***Fulvocompe*** Laguerre, 2023 **gen**. **nov**.

ZooBank: https://zoobank.org/48A8C1D6-1E94-46A1-A8DB-0AC5BA58CE1F
(see Plate 9 for some examples and Fig. 13 for genitalia)

Type species. – *Turuptiana ockendeni* Rothschild, 1909 by original designation.

Etymology. – A name built into two parts: from the Latin *Fulvos* which means dark yellow and *compe* which is the second half of the word *Hypercompe*.

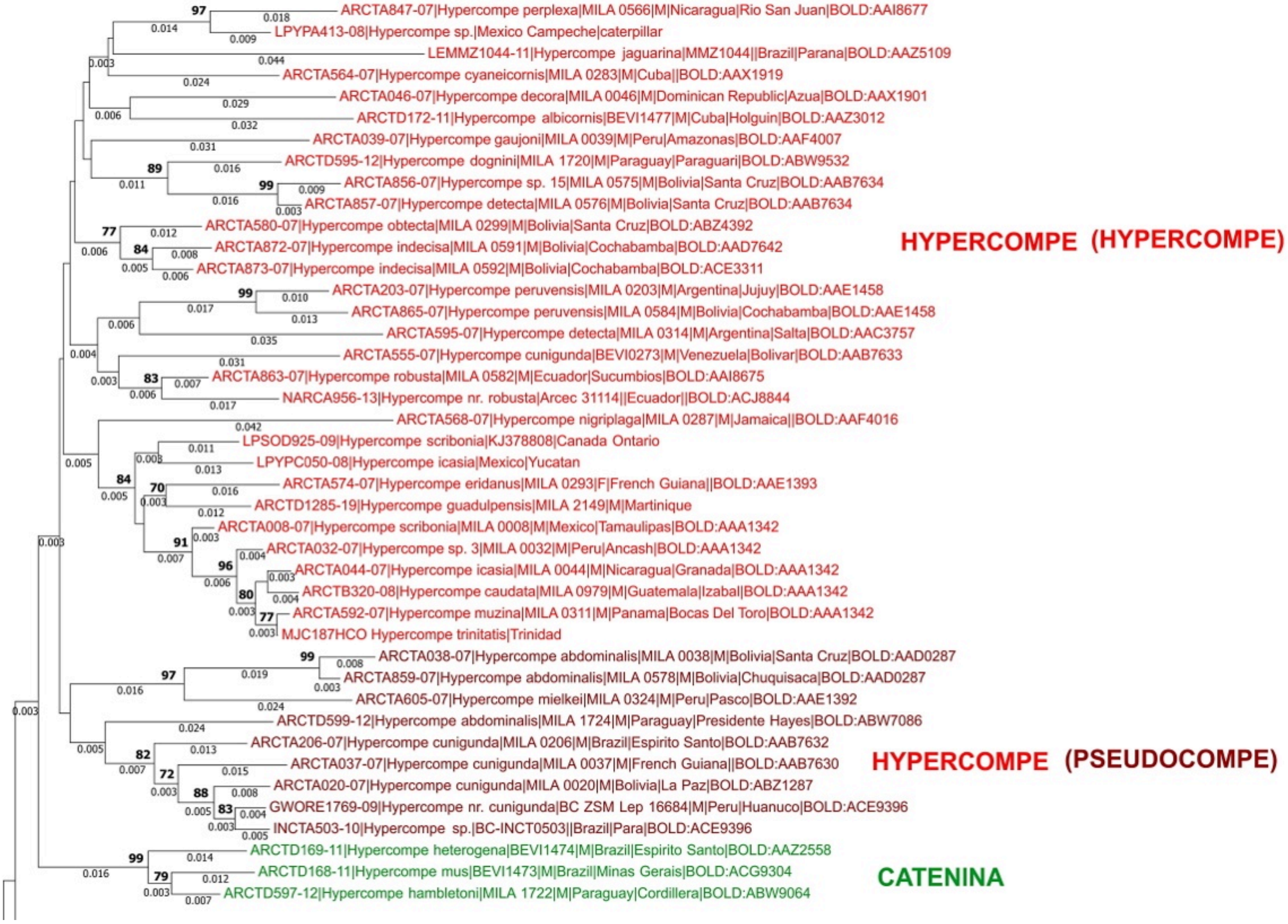
This genus has been previously tentatively described by Pinas under the name *Galaxicompe* but unfortunately the description was invalid (Pinas, 2006 p. 62-63 and Pinas, 2008 figures 488 to 503). This is a genus of small to medium size (females) species genus with a characteristic brownish mustard yellow color. The sexual dimorphism is moderate and, as usual, females are larger and darker. They inhabit all the mountainous systems from South East Brazil to at least Guatemala. The present nomenclature is badly in need of revision and several species are awaiting description. One species from Guatemala will be described as new below. The group of *F. dissimilis*, *F. lemairei* and *F. bahiaensis* appears slightly separated from the remaining species and more study is necessary to validate its exact status. Moreover, the distances between all entities in the genus are large (up to 10-11 %) and the situation is maybe more complex than described here. The male genitalia are moderately sclerotized. The uncus is long and flat and its tip is shaped as a small hook pointing downwards. The valvae reach at least the base of uncus, they are slightly bent inwards, inflated in the middle with a narrow and pointed extremity, sometimes bent at 90°. The saccus is present as a large pointed triangle. The juxta is massive. The aedeagus is a long and narrow cylinder with a small perpendicular vesica bearing one or several patches of cornuti. As in the preceding genera, segment VIII encircles the genital capsule but it is small, weakly sclerotized and subtriangular.

Fulvocompe bahiaensis (Laguerre, 2019)* **comb**. **nov**.
Fulvocompe beckeri (Watson & Goodger, 1986)* **comb**. **nov**.
Fulvocompe bricenoi (Rothschild, 1909) **comb**. **nov**.
Fulvocompe dissimilis (Schaus, 1896)* **comb**. **nov**.
Fulvocompe guatemalensis Laguerre, 2023 **sp**. **nov**. (see below)*
Fulvocompe lemairei (Watson & Goodger, 1986)* **comb**. **nov**.
Fulvocompe marcescens (Felder & Rogenhofer, 1874) **comb**. **nov**.
Fulvocompe nemophila (Herrich-Schäffer, [1853])* **comb**. **nov**.
Fulvocompe neurophylla (Walker, 1856)* **comb**. **nov**.
Fulvocompe obscura (Schaus, 1901)* **comb**. **nov**.
Fulvocompe ockendeni (Rothschild, 1909)* **comb**. **nov**.
Fulvocompe tessellata (Druce, 1906)* **comb**. **nov**.

Conclusion

Up to now the former genus *Hypercompe* contained 87 species, the genus *Arachnis* six species and the genus *Leichosila* two species. The tree presented in the Annex below contains now at least 115 different entities but indeed it was impossible to sequence all available species. In conclusion the group contains many more species than presently thought even in well-studied groups like *Arachnis* or *Leichosila*. A large number of undescribed species exist in almost all areas even in countries with large survey programs like USA or some countries in Central America. We will try in forthcoming papers to describe some of these new entities but a full survey of this group is a huge work beyond the capacities of a single specialist. After Annex 1 which presents the full colour reduced tree we will describe several new entities (Annex 2) and we will review the group in Cuba (Annex 3), finally in Annex 4 we will present a correction.

Annex 1 - Full colour tree reduced to one sequence per entity


ARCTA847-07|Hypercompe perplexa|MILA 0566|M|Nicaragua|Rio San Juan|BOLD:AAI8677
LPYPA413-08|Hypercompe sp.|Mexico Campeche|caterpillar
LEMMZ1044-11|Hypercompe jaguarina|MMZ1044||Brazil|Parana|BOLD:AAZ5109
ARCTA564-07|Hypercompe cyaneicornis|MILA 0283|M|Cuba||BOLD:AAX1919
ARCTA046-07|Hypercompe decora|MILA 0046|M|Dominican Republic|Azua|BOLD:AAX1901
ARCTD172-11|Hypercompe albicornis|BEVI1477|M|Cuba|Holguin|BOLD:AAZ3012
ARCTA039-07|Hypercompe gaujoni|MILA 0039|M|Peru|Amazonas|BOLD:AAF4007
ARCTD595-12|Hypercompe dognini|MILA 1720|M|Paraguay|Paraguari|BOLD:ABW9532
ARCTA856-07|Hypercompe sp. 15|MILA 0575|M|Bolivia|Santa Cruz|BOLD:AAB7634
ARCTA857-07|Hypercompe detecta|MILA 0576|M|Bolivia|Santa Cruz|BOLD:AAB7634
ARCTA580-07|Hypercompe obtecta|MILA 0299|M|Bolivia|Santa Cruz|BOLD:ABZ4392
ARCTA872-07|Hypercompe indecisa|MILA 0591|M|Bolivia|Cochabamba|BOLD:AAD7642
ARCTA873-07|Hypercompe indecisa|MILA 0592|M|Bolivia|Cochabamba|BOLD:ACE3311
ARCTA203-07|Hypercompe peruvensis|MILA 0203|M|Argentina|Jujuy|BOLD:AAE1458
ARCTA865-07|Hypercompe peruvensis|MILA 0584|M|Bolivia|Cochabamba|BOLD:AAE1458
ARCTA595-07|Hypercompe detecta|MILA 0314|M|Argentina|Salta|BOLD:AAC3757
ARCTA555-07|Hypercompe cunigunda|BEVI0273|M|Venezuela|Bolivar|BOLD:AAB7633
ARCTA863-07|Hypercompe robusta|MILA 0582|M|Ecuador|Sucumbios|BOLD:AAI8675
NARCA956-13|Hypercompe nr. robusta|Arcec 31114||Ecuador||BOLD:ACJ8844
ARCTA568-07|Hypercompe nigriplaga|MILA 0287|M|Jamaica||BOLD:AAF4016
LPSOD925-09|Hypercompe scribonia|KJ378808|Canada Ontario
LPYPC050-08|Hypercompe icasia|Mexico|Yucatan
ARCTA574-07|Hypercompe eridanus|MILA 0293|F|French Guiana||BOLD:AAE1393
ARCTD1285-19|Hypercompe guadulpensis|MILA 2149|M|Martinique
ARCTA008-07|Hypercompe scribonia|MILA 0008|M|Mexico|Tamaulipas|BOLD:AAA1342
ARCTA032-07|Hypercompe sp. 3|MILA 0032|M|Peru|Ancash|BOLD:AAA1342
ARCTA044-07|Hypercompe icasia|MILA 0044|M|Nicaragua|Granada|BOLD:AAA1342
ARCTB320-08|Hypercompe caudata|MILA 0979|M|Guatemala|Izabal|BOLD:AAA1342
ARCTA592-07|Hypercompe muzina|MILA 0311|M|Panama|Bocas Del Toro|BOLD:AAA1342
MJC187HCO Hypercompe trinitatis|Trinidad
ARCTA038-07|Hypercompe abdominalis|MILA 0038|M|Bolivia|Santa Cruz|BOLD:AAD0287
ARCTA859-07|Hypercompe abdominalis|MILA 0578|M|Bolivia|Chuquisaca|BOLD:AAD0287
ARCTA605-07|Hypercompe mielkei|MILA 0324|M|Peru|Pasco|BOLD:AAE1392
ARCTD599-12|Hypercompe abdominalis|MILA 1724|M|Paraguay|Presidente Hayes|BOLD:ABW7086
ARCTA206-07|Hypercompe cunigunda|MILA 0206|M|Brazil|Espirito Santo|BOLD:AAB7632
ARCTA037-07|Hypercompe cunigunda|MILA 0037|M|French Guiana||BOLD:AAB7630
ARCTA020-07|Hypercompe cunigunda|MILA 0020|M|Bolivia|La Paz|BOLD:ABZ1287
GWORE1769-09|Hypercompe nr. cunigunda|BC ZSM Lep 16684|M|Peru|Huanuco|BOLD:ACE9396
INCTA503-10|Hypercompe sp.|BC-INCT0503||Brazil|Para|BOLD:ACE9396
ARCTD169-11|Hypercompe heterogena|BEVI1474|M|Brazil|Espirito Santo|BOLD:AAZ2558
ARCTD168-11|Hypercompe mus|BEVI1473|M|Brazil|Minas Gerais|BOLD:ACG9304
ARCTD597-12|Hypercompe hambletoni|MILA 1722|M|Paraguay|Cordillera|BOLD:ABW9064
HYPERCOMPE (HYPERCOMPE)
HYPERCOMPE (PSEUDOCOMPE)
CATENINA
97
89
99
77
84
99
83
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99
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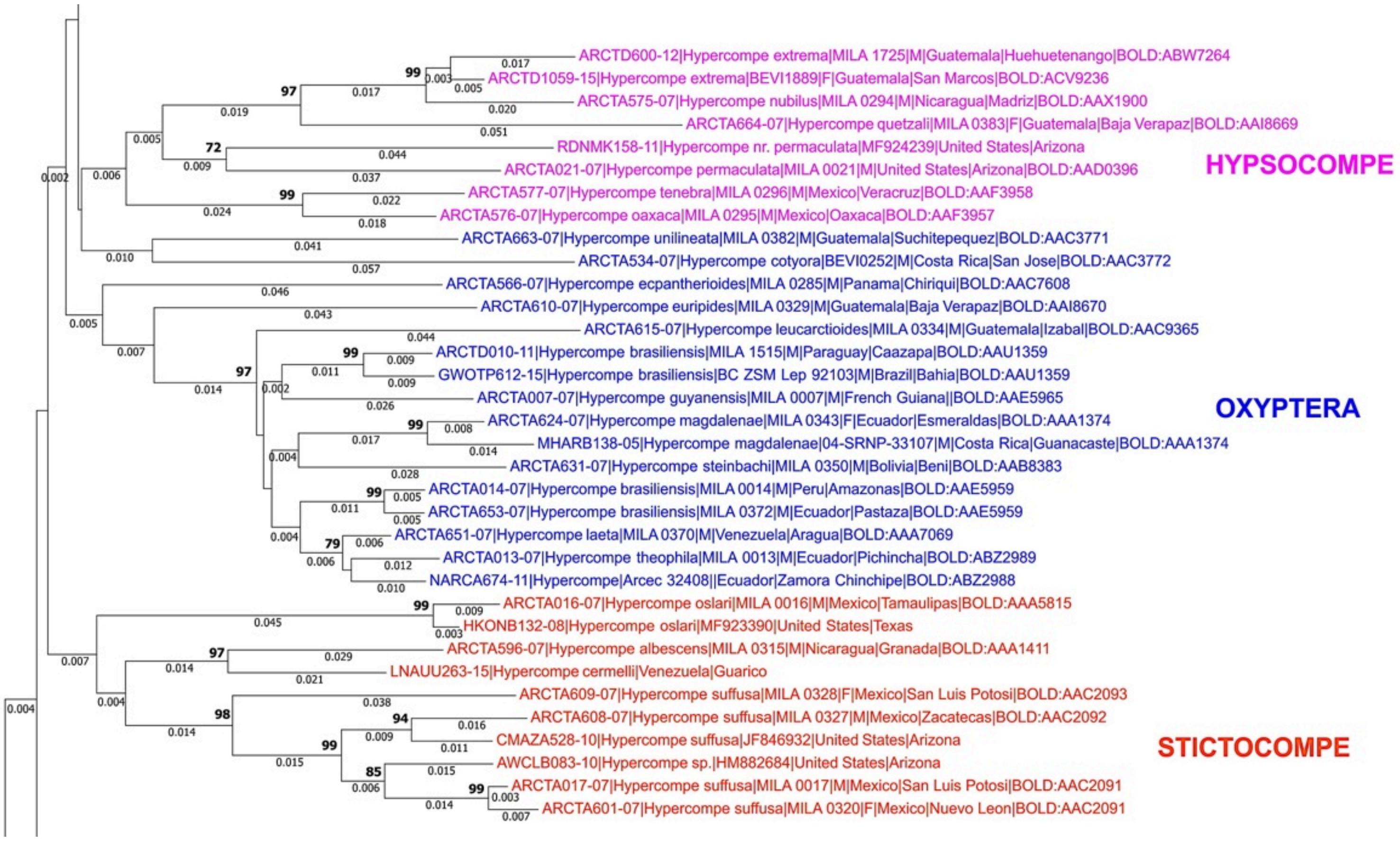
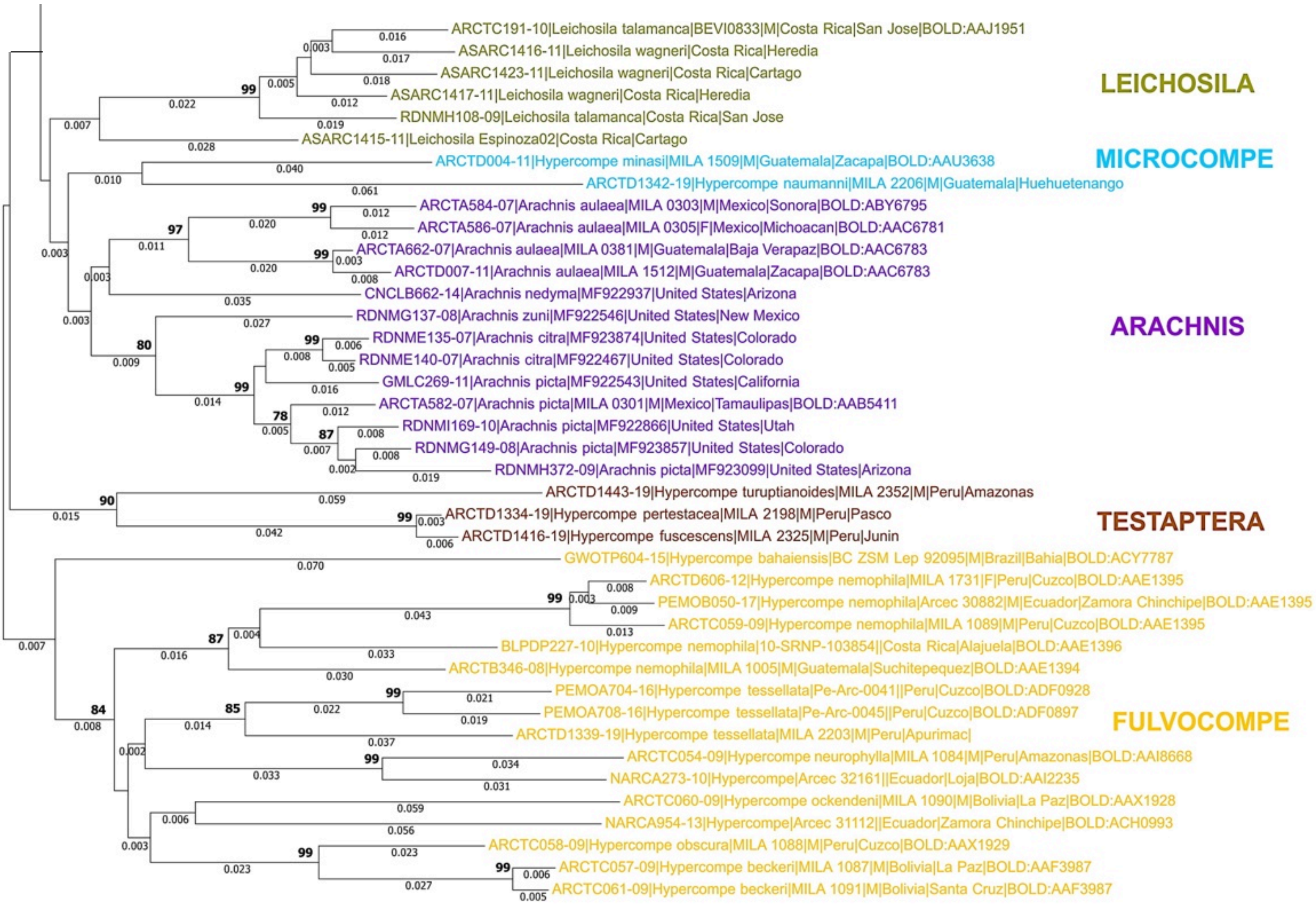
Annex 1a. Genera *Hypercompe* and *Catenina*.


ARCTD600-12|Hypercompe extrema|MILA 1725|M|Guatemala|Huehuetenango|BOLD:ABW7264
ARCTD1059-15|Hypercompe extrema|BEVI1889|F|Guatemala|San Marcos|BOLD:ACV9236
ARCTA575-07|Hypercompe nubilus|MILA 0294|M|Nicaragua|Madriz|BOLD:AAX1900
ARCTA664-07|Hypercompe quetzali|MILA 0383|F|Guatemala|Baja Verapaz|BOLD:AAI8669
RDNMK158-11|Hypercompe nr. permaculata|MF924239|United States|Arizona
ARCTA021-07|Hypercompe permaculata|MILA 0021|M|United States|Arizona|BOLD:AAD0396
ARCTA577-07|Hypercompe tenebra|MILA 0296|M|Mexico|Veracruz|BOLD:AAF3958
ARCTA576-07|Hypercompe oaxaca|MILA 0295|M|Mexico|Oaxaca|BOLD:AAF3957
HYPSOCOMPE
ARCTA663-07|Hypercompe unilineata|MILA 0382|M|Guatemala|Suchitepequez|BOLD:AAC3771
ARCTA534-07|Hypercompe cotyora|BEVI0252|M|Costa Rica|San Jose|BOLD:AAC3772
ARCTA566-07|Hypercompe ecpantherioides|MILA 0285|M|Panama|Chiriqui|BOLD:AAC7608
ARCTA610-07|Hypercompe euripides|MILA 0329|M|Guatemala|Baja Verapaz|BOLD:AAI8670
ARCTA615-07|Hypercompe leucarctioides|MILA 0334|M|Guatemala|Izabal|BOLD:AAC9365
ARCTD010-11|Hypercompe brasiliensis|MILA 1515|M|Paraguay|Caazapa|BOLD:AAU1359
GWOTP612-15|Hypercompe brasiliensis|BC ZSM Lep 92103|M|Brazil|Bahia|BOLD:AAU1359
ARCTA007-07|Hypercompe guyanensis|MILA 0007|M|French Guiana||BOLD:AAE5965
OXYPTERA
ARCTA624-07|Hypercompe magdalenae|MILA 0343|F|Ecuador|Esmeraldas|BOLD:AAA1374
MHARB138-05|Hypercompe magdalenae|04-SRNP-33107|M|Costa Rica|Guanacaste|BOLD:AAA1374
ARCTA631-07|Hypercompe steinbachi|MILA 0350|M|Bolivia|Beni|BOLD:AAB8383
ARCTA014-07|Hypercompe brasiliensis|MILA 0014|M|Peru|Amazonas|BOLD:AAE5959
ARCTA653-07|Hypercompe brasiliensis|MILA 0372|M|Ecuador|Pastaza|BOLD:AAE5959
ARCTA651-07|Hypercompe laeta|MILA 0370|M|Venezuela|Aragua|BOLD:AAA7069
ARCTA013-07|Hypercompe theophila|MILA 0013|M|Ecuador|Pichincha|BOLD:ABZ2989
NARCA674-11|Hypercompe|Arcec 32408||Ecuador|Zamora Chinchipe|BOLD:ABZ2988
ARCTA016-07|Hypercompe oslari|MILA 0016|M|Mexico|Tamaulipas|BOLD:AAA5815
HKONB132-08|Hypercompe oslari|MF923390|United States|Texas
ARCTA596-07|Hypercompe albescens|MILA 0315|M|Nicaragua|Granada|BOLD:AAA1411
LNAUU263-15|Hypercompe cermelli|Venezuela|Guarico
ARCTA609-07|Hypercompe suffusa|MILA 0328|F|Mexico|San Luis Potosi|BOLD:AAC2093
ARCTA608-07|Hypercompe suffusa|MILA 0327|M|Mexico|Zacatecas|BOLD:AAC2092
CMAZA528-10|Hypercompe suffusa|JF846932|United States|Arizona
STICTOCOMPE
AWCLB083-10|Hypercompe sp.|HM882684|United States|Arizona
ARCTA017-07|Hypercompe suffusa|MILA 0017|M|Mexico|San Luis Potosi|BOLD:AAC2091
ARCTA601-07|Hypercompe suffusa|MILA 0320|F|Mexico|Nuevo Leon|BOLD:AAC2091

Annex 1b. Genera *Hypsocompe, Oxyptera* and *Stictocompe*.


ARCTC191-10|Leichosila talamanca|BEVI0833|M|Costa Rica|San Jose|BOLD:AAJ1951
ASARC1416-11|Leichosila wagneri|Costa Rica|Heredia
ASARC1423-11|Leichosila wagneri|Costa Rica|Cartago
ASARC1417-11|Leichosila wagneri|Costa Rica|Heredia
LEICHOSILA
RDNMH108-09|Leichosila talamanca|Costa Rica|San Jose
ASARC1415-11|Leichosila Espinoza02|Costa Rica|Cartago
ARCTD004-11|Hypercompe minasi|MILA 1509|M|Guatemala|Zacapa|BOLD:AAU3638
MICROCOMPE
ARCTD1342-19|Hypercompe naumanni|MILA 2206|M|Guatemala|Huehuetenango
ARCTA584-07|Arachnis aulaea|MILA 0303|M|Mexico|Sonora|BOLD:ABY6795
ARCTA586-07|Arachnis aulaea|MILA 0305|F|Mexico|Michoacan|BOLD:AAC6781
ARCTA662-07|Arachnis aulaea|MILA 0381|M|Guatemala|Baja Verapaz|BOLD:AAC6783
ARCTD007-11|Arachnis aulaea|MILA 1512|M|Guatemala|Zacapa|BOLD:AAC6783
CNCLB662-14|Arachnis nedyma|MF922937|United States|Arizona
RDNMG137-08|Arachnis zuni|MF922546|United States|New Mexico
ARACHNIS
RDNME135-07|Arachnis citra|MF923874|United States|Colorado
RDNME140-07|Arachnis citra|MF922467|United States|Colorado
GMLC269-11|Arachnis picta|MF922543|United States|California
ARCTA582-07|Arachnis picta|MILA 0301|M|Mexico|Tamaulipas|BOLD:AAB5411
RDNMI169-10|Arachnis picta|MF922866|United States|Utah
RDNMG149-08|Arachnis picta|MF923857|United States|Colorado
RDNMH372-09|Arachnis picta|MF923099|United States|Arizona
ARCTD1443-19|Hypercompe turuptianoides|MILA 2352|M|Peru|Amazonas
ARCTD1334-19|Hypercompe pertestacea|MILA 2198|M|Peru|Pasco
TESTAPTERA
ARCTD1416-19|Hypercompe fuscescens|MILA 2325|M|Peru|Junin
GWOTP604-15|Hypercompe bahaiensis|BC ZSM Lep 92095|M|Brazil|Bahia|BOLD:ACY7787
ARCTD606-12|Hypercompe nemophila|MILA 1731|F|Peru|Cuzco|BOLD:AAE1395
PEMOB050-17|Hypercompe nemophila|Arcec 30882|M|Ecuador|Zamora Chinchipe|BOLD:AAE1395
ARCTC059-09|Hypercompe nemophila|MILA 1089|M|Peru|Cuzco|BOLD:AAE1395
BLPDP227-10|Hypercompe nemophila|10-SRNP-103854||Costa Rica|Alajuela|BOLD:AAE1396
ARCTB346-08|Hypercompe nemophila|MILA 1005|M|Guatemala|Suchitepequez|BOLD:AAE1394
PEMOA704-16|Hypercompe tessellata|Pe-Arc-0041||Peru|Cuzco|BOLD:ADF0928
PEMOA708-16|Hypercompe tessellata|Pe-Arc-0045||Peru|Cuzco|BOLD:ADF0897
FULVOCOMPE
ARCTD1339-19|Hypercompe tessellata|MILA 2203|M|Peru|Apurimac|
ARCTC054-09|Hypercompe neurophylla|MILA 1084|M|Peru|Amazonas|BOLD:AAI8668
NARCA273-10|Hypercompe|Arcec 32161||Ecuador|Loja|BOLD:AAI2235
ARCTC060-09|Hypercompe ockendeni|MILA 1090|M|Bolivia|La Paz|BOLD:AAX1928
NARCA954-13|Hypercompe|Arcec 31112||Ecuador|Zamora Chinchipe|BOLD:ACH0993
ARCTC058-09|Hypercompe obscura|MILA 1088|M|Peru|Cuzco|BOLD:AAX1929
ARCTC057-09|Hypercompe beckeri|MILA 1087|M|Bolivia|La Paz|BOLD:AAF3987
ARCTC061-09|Hypercompe beckeri|MILA 1091|M|Bolivia|Santa Cruz|BOLD:AAF3987

Annex 1c. Genera *Leichosila, Microcompe, Arachnis, Testaptera, Oxyptera* and *Fulvocompe*.

Annex 2 - Descriptions of new species

Hypercompe (***Hypercompe***) ***pantepui*** Laguerre **sp**. **n**.

BOLD:AAB7633

ZooBank: https://zoobank.org/7ECA5973-FD3B-42E7-B155-2CB42CAD87CE

Holotype, ♂, VENEZUELA. Bolivar, Road San Francisco de Yuruani to Paraitepuy, Km 8, 06-XI-2001, 1300 m, 5°1.444' N 61°3.594' W, B. Vincent *leg*. Dissected BV199. Sample ID BEVI0273 – BOLD Process ID ARCTA555-079. Will be deposited in MNHN.

Paratypes

VENEZUELA

1 ♂, same data as holotype, but dissected Gen. ML3252 (light-blue manuscript label), Sample ID MILA 0571 (yellow printed label) – BOLD Process ID ARCTA852-07, in MLC.

1 ♂, same data and sequenced Sample ID BEVI0254 – BOLD Process ID ARCTA536-07, in BVC.

1 ♂, same data, in MNHN.

Diagnosis. – A robust species with the classical "*Hypercompe*" pattern restricted to the forewing basal area in the males. Hindwing immaculate except a black band along the anal border. Anal angle clearly protruding.

Male description (Fig. 14)

Antennae black and shortly ciliate. Head and thorax hairy and creamy-white. Head with frons black and vertex white. Palpi very short black upper side and creamy white underside. Tegulae with an ovoid patch circled with black. Patagia very hairy with an elongated patch circled with black. Thorax with on each side an elongated patch circled with black on each side and posteriorly with two black dots with a metallic bluish sheen. Thorax below white with black forecoxae, the legs white with black tibiae and tarsi. Abdomen upperside orange annealed with black, below buff yellow. Forewing translucent slightly speckled with dark scales except the costa and along the inner margin which are creamy-white. On the costa five rectangular black patches. The classical "*Hypercompe*" pattern strong but restricted to the basal area: one grey round spot circled with black at the base, then a transverse line of three grey round spots circled with black, a transverse line of grey spots hardly visible except the two first on inner margin and then two grey spots circled with black on inner margin. On termen a line of thin black dashes interrupted by veins. Hindwings immaculate except a large and hairy black band along the anal border. The anal angle rounded and protruding. Underside identical to upper side but the black pattern is less contrasting and there are two square black dots on the hindwing costa.

Female. – Unknown.

Male genitalia (Fig. 15)

Tergite VIII heart-shaped. Tegumen as a rectangle with rounded angles. Uncus as a large triangle bent ventrally. Valvae almost absent reduced to a small digitate translucent lobe covered with long setae. Juxta shaped as an hour-glass, largely concave on top. On each side an elongated area covered with short setae. Aedeagus stout and short. A very long caecum penis, bent at 150° near beginning. Vesica short, with a single scobinate lobe.

Early stages. – Unknown.

Etymology. – A noun in apposition by reference to the locality of the type series.

Distribution. – Presently only known from the Pantepuy area in the Gran Sabana ecoregion in Venezuela.

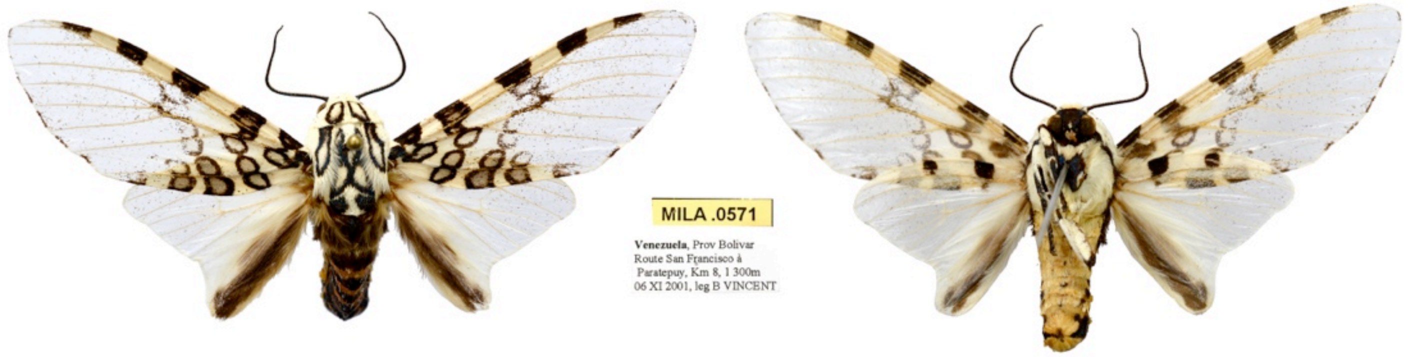


Fig. 14. Male holotype of *Hypercompe (Hypercompe) pantepui* Laguerre **sp**. **nov**. from Venezuela, Bolivar, upperside left and underside right. Labels not to scale.

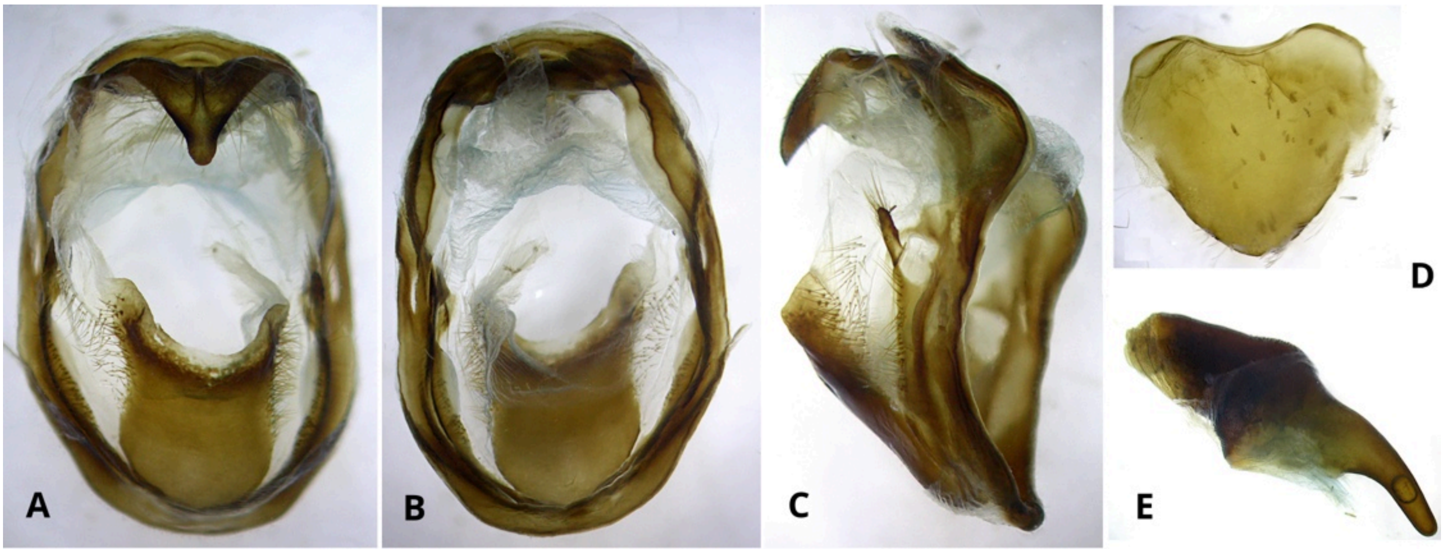


Fig. 15. *Hypercompe (Hypercompe) pantepui* Laguerre **sp**. **nov**. from Venezuela, Bolivar. **A**. Ventral view. **B**. Dorsal view. **C**. Lateral view. **D**. Tergite VIII. **E**. Aedeagus.

Discussion. – Despite its apparent similarity with the *H. cunigunda* group (subgenus *Pseudocompe*), this species is in fact far from this subgenus, being a member of the subgenus *Hypercompe*. The nearest neighbours at a distance minimum of 4.2 % are the group of *Hypercompe robusta*, which contains large and robust species inhabiting the Andean Cordillera between 1500 and 2500 m.

Hypsocompe oaxaca Laguerre **sp**. **n**.

BOLD:AAF3957

ZooBank: https://zoobank.org/9A759E0A-A61A-49B0-BB48-64CDD812654F

Holotype, ♂, MEXICO. Oaxaca, Concepcion Papalo, 10-VII-1997, 2275 m, G. Nogueira *leg*. Gen. ML2887 (light-blue manuscript label), Sample ID MILA 0295 (yellow printed label) – BOLD Process ID ARCTA567-07. Will be deposited in MNHN.

Diagnosis. – A small species, the white forewings with a wide network of black patches and streaks. The hindwings are pure white with a wide blackish submarginal band from anal angle to apex.

Male description (Fig 16)

Antennae thin and black, shortly ciliate. Head, frons black and vertex white and very hairy. Palpi short and black, very hairy. Tegulae white with a central triangular black patch. Patagia black bordered by long white hairs. Thorax hirsute, white with a black square central spot, underside black. Forewings with a creamy-white background and a pattern of black spots and patches covering the entire surface. Hindwings white, slightly translucent, with the veins outlined with buff-yellow. A double dark grey spot on costa near base, a dark grey patch at the end of cell, an irregular dark grey band in submarginal position from anal angle to apex and finally five to six dark grey round dots of variable size on margin. The anal border with grey hairs. Underside identical to upper side except the forewing pattern which is dark grey instead of black.

Female. – Unknown.

Male genitalia (Fig. 17).

Tegumen ovoid. Short, lanceolate valvae, not reaching the base of uncus. They are bent ventrally in the last third. Uncus short and narrow, strongly sclerotized and shaped as a hook. Below uncus a pair of granulose sclerotized almost spherical processes. Vinculum evenly rounded with a short saccus. Juxta prominent and shaped as an hour-glass. The aedeagus short and cylindrical is not strongly sclerotized but displays a wide scobinate vesica bearing near base an area of thin cornuti. Caecum penis present and round but short. Tergite VIII subquadrate, deeply bilobed posteriorly.

Early stages. – Unknown.

Etymology. – A noun in apposition by reference to the locality of the type series.

Distribution. – Presently known only at high altitudes in the north of Oaxaca state in Mexico.

Discussion. – This species aligns at 3.0 % from the Mexican *Hypercompe tenebra* described from Orizaba, Vera-Cruz. The two species have very close habitus and they inhabit the two slopes of the Central Range: on the Atlantic slope for *H. tenebra* and the Pacific slope for *H. oaxaca*. Furthermore, the type of *tenebra*, housed in USNM, and which has been dissected by Alan Watson (reference AW493 *in* Watson, 1973), is characterized by an almost plain dark grey hindwing.

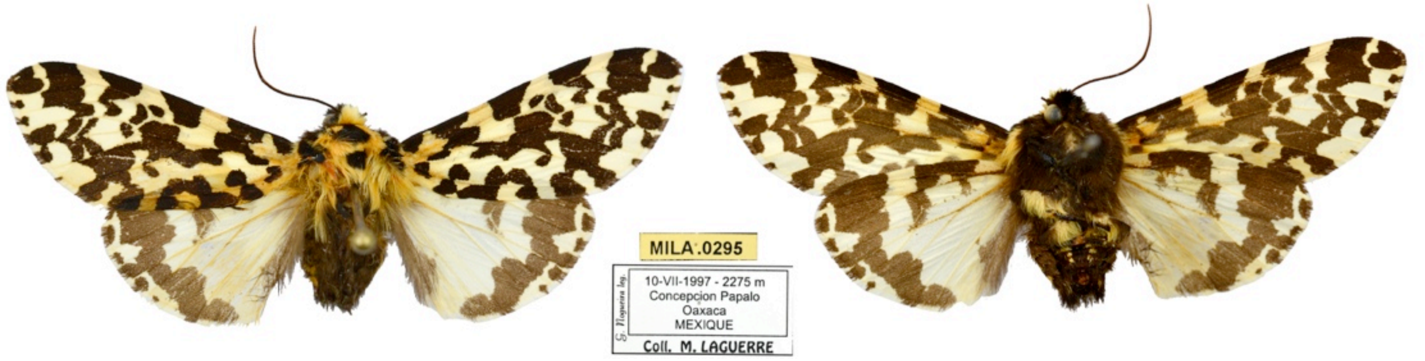


Fig. 16. Male paratype of *Hypsocompe oaxaca* Laguerre **sp**. **nov**. from Mexico, Oaxaca, upperside left and under side right. Labels not to scale.

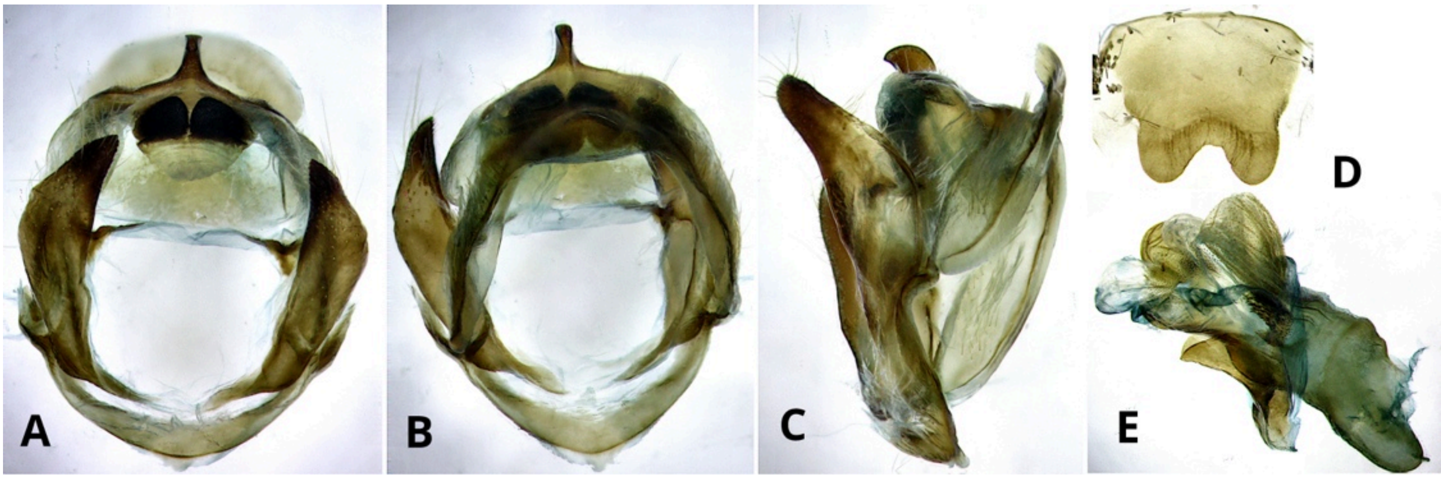


Fig. 17. Male genitalia of *Hypsocompe oaxaca* Laguerre 2022 from Mexico, Oaxaca. **A**. Ventral view. **B**. Dorsal view. **C**. Lateral view. **D**. Tergite VIII. **E**. Aedeagus with juxta still attached.

Hypsocompe quetzali Laguerre **sp**. **n**.

BOLD:AAI8669

ZooBank: https://zoobank.org/1A60A7D2-5153-4105-9663-B8AAFCAAFEEC

Holotype, ♂, GUATEMALA. Baja Verapaz, Santa Rosa, 14 & 23-V-2007, 1580 m, 15°14.384'N 91°17.941'W, M. Laguerre *leg*. Gen. ML2888 (light-blue manuscript label), Sample ID MILA 0332 (yellow printed label) – BOLD Process ID ARCTA613-07. Will be deposited in MNHN.

Paratypes

1 ♀, same data as Holotype, sequenced ID MILA 0383 (yellow printed label) – BOLD Process ID ARCTA664-07. In MLC.

1 ♀, Baja Verapaz, Road Pantin to Salama, KM 3, 17-X-2014, 1560 m, 15.2397° N, 90.2989° W, Quentin Rome *leg*., sequenced Sample ID BEVI1888 (yellow printed label) – BOLD Process ID ARCTD1058-15. In BVC.

Diagnosis. – A small (male) to medium (female) species with a strong black pattern of patches on forewings, the hindwings being almost entirely pure white in the male. The female is larger with lighter forewings but darker hindwings.

Male description (Fig. 18)**.**

Antennae long, thin and black, shortly ciliate. Head with frons grey and vertex white. Very short palpi, dark grey. Tegulae white with a triangular black patch. Patagia white with a line of two round black spots. Thorax white with a median black bar and two round black spots posteriorly, dark grey and very hairy underside. Forewings with a white background and a pattern of black spots. On costa five rectangular black spots: one double, one large and two medium. Near base a tilted line of three black dots, then a median band of large black spots going from inner margin to costa, the veins being white. A double postmedian band of small spots going from tornus to near apex. Finally, a row of submarginal black spots of variable size and two black streaks on margin from CuA_1 to M_2. Hindwings pure white with three black spots on the costa and a few round dark grey spots on the margin. The anal border, hairy and suffused with dark grey.

Female (Fig. 18). – Larger and lighter than the male. Antennae thin and black. The black pattern identical to the male but much more narrower both on the wings and on the body, giving a much whiter appearance except for the hindwings which are grey with a white discal fascia. The marginal area is white with a row of round grey spots.

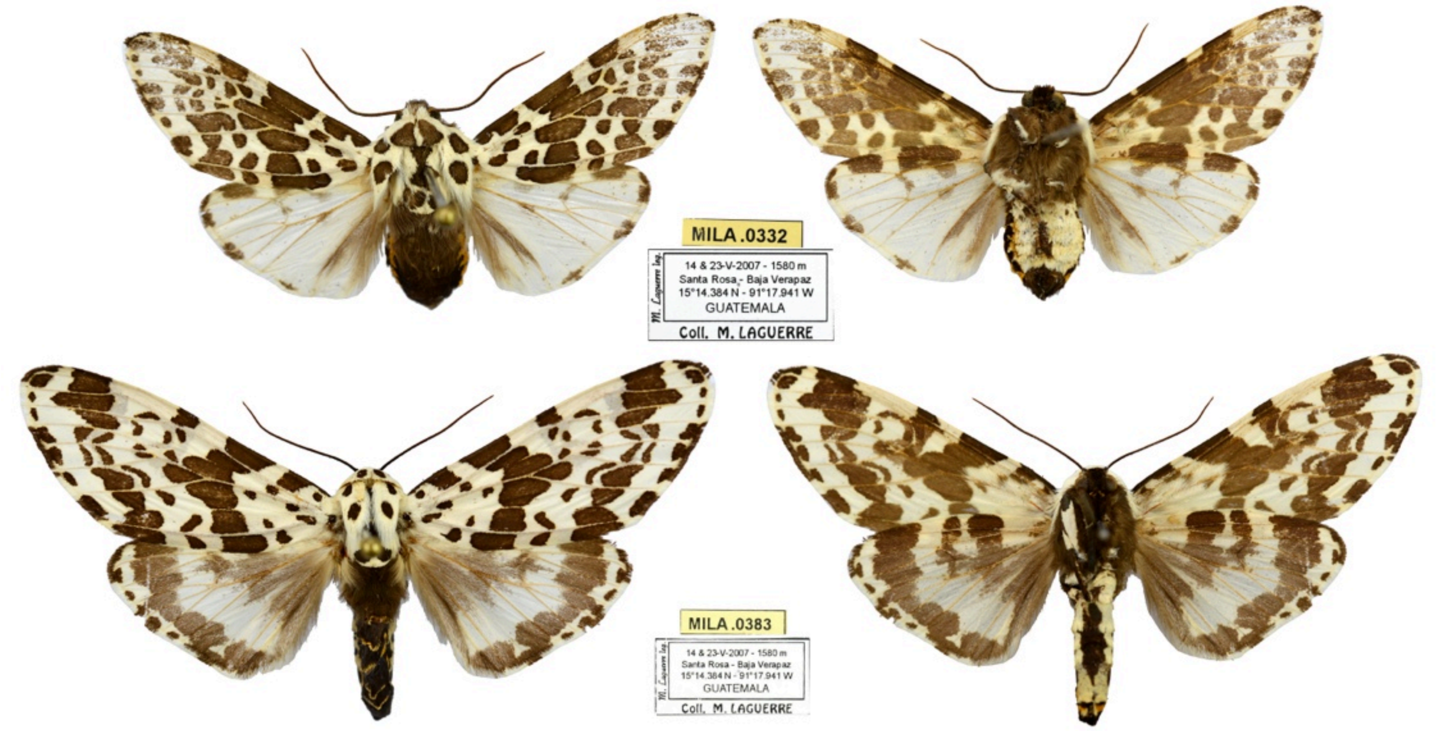


Fig. **18**. Above, male holotype of *Hypsocompe quetzali* Laguerre **sp**. **nov**. from Guatemala, Baja Verapaz; below female paratype, upperside left and underside right. Labels not to scale.

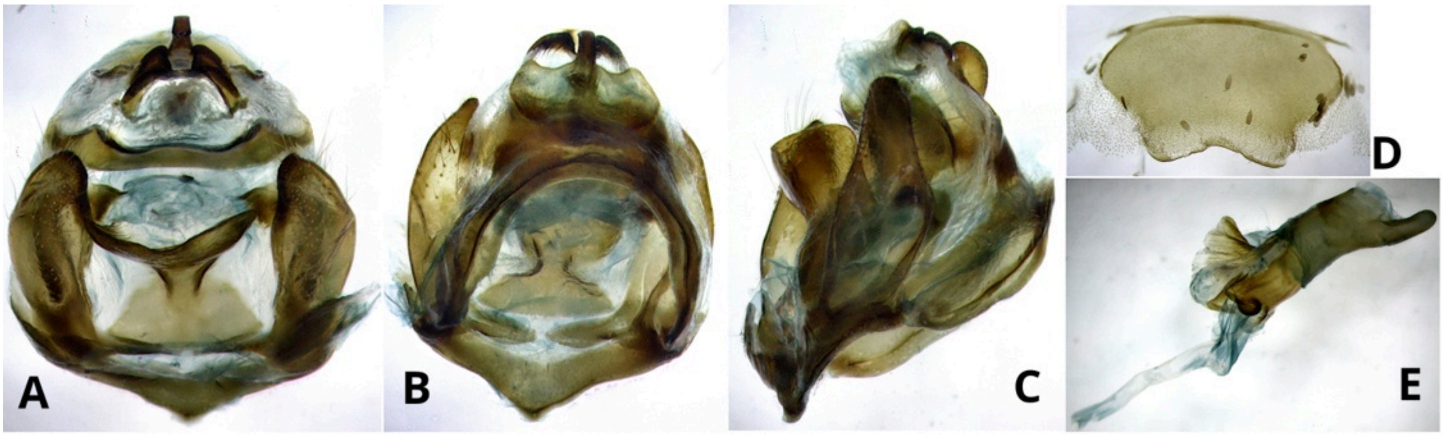


Fig. **19**. Male genitalia of *Hypsocompe quetzali* Laguerre, 2022 from Guatemala, Baja Verapaz. **A**. Ventral view. **B**. Dorsal view. **C**. Lateral view. **D**. Tergite VIII. **E**. Aedeagus.

Male genitalia (Fig. 19).

Tegumen ovoid. Very short, elongate valvae with a blunt extremity, noticeably shorter than base of uncus. They are narrowed in the last third. Uncus short and narrow, strongly sclerotized and shaped as a hook. Below uncus a strongly sclerotized process shaped as a reverse "U". Vinculum evenly rounded with a short striangular saccus. Juxta prominent and shaped as an hourglass very constricted in middle with the hopetop border shaped as a cup. The aedeagus is short and cylindrical, not strongly sclerotized but displays a wrinkled scobinate vesica slightly sclerotized near base and with an area of tiny cornuti at the base on the ductus ejaculatorius. Caecum penis present, long and cylindrical with a rounded extremity. Tergite VIII subrectangular slightly bilobed posteriorly.

Early stages. – Unknown.

Etymology. – By reference to the Biotopo del Quetzal, an area where the majority of the type series were collected (Baja Verapaz department in north-east Guatemala).

Distribution. – Presently only known at medium altitudes from the northern slope of the Central Range in departments of Baja Verapaz and Zacapa.

Discussion. – This species aligns in a small cluster of three similar species with *H. extrema* and *H. nubilus* but it is clearly remote from these last species being at 8.8 % from *H. nubilus* and at least at 7.6 % from *H. extrema*. The exact type locality of *extrema* is unknown given only as Mexico. Nevertheless, the type, housed in NHMUK, has been dissected by A. Watson (reference n°2172) and the species is present in Guatemala but on the Pacific slope of the Central Range and near the Mexican border (Huehuetenango and San Marcos).

Hypsocompe nubilus Laguerre **sp**. **n**.

BOLD:AAX1900

ZooBank: https://zoobank.org/A0410FB8-4CB0-4F55-AA43-0D10FE6B20DC

Holotype, ♂, NICARAGUA. Madriz, Rte Somoto - Sta Teresa, PK 12, 29-VII-2000, 1400 m, M. Laguerre *leg*. Gen. ML1943 (white manuscript label), Sample ID MILA 0294 (yellow printed label) – BOLD Process ID ARCTA575-07. Will be deposited in MNHN.

Diagnosis. – A small species with a dense pattern of subrectangular black patches on forewings and plain dark grey hindwings.

Male description (Fig. 20)

Antennae long, thin and black, shortly ciliate. Head with frons black and vertex creamy-white. Short palpi, black. Tegulae white with a triangular black patch. Patagia white with a line of two round black spots, the posterior one larger. Thorax creamy-white with a wide median black bar and two round black spots posteriorly, black and very hairy underside. Forewings with a white background and a pattern of subrectangular black spots. On costa five black spots. Near base a tilted line of three black dots, then a median band of large black spots going from inner margin to costa, the veins being white. A double postmedian band of spots going from tornus to near apex. Finally, a row of submarginal black spots of variable size and two black streaks on margin from CuA_1 to M_2. Hindwings plain grey with two creamy square patches on the costa. The margin slightly darker. Underside identical to upper side but on forewings the background is largely suffused with grey leaving some white patches near base and margin.

Female. – Unknown.

Male genitalia (Fig. 21).

Tegumen subrectangular. Short, lanceolate valvae, not reaching the base of uncus. They are narrowed in the last third with a pointed tip. Uncus short and

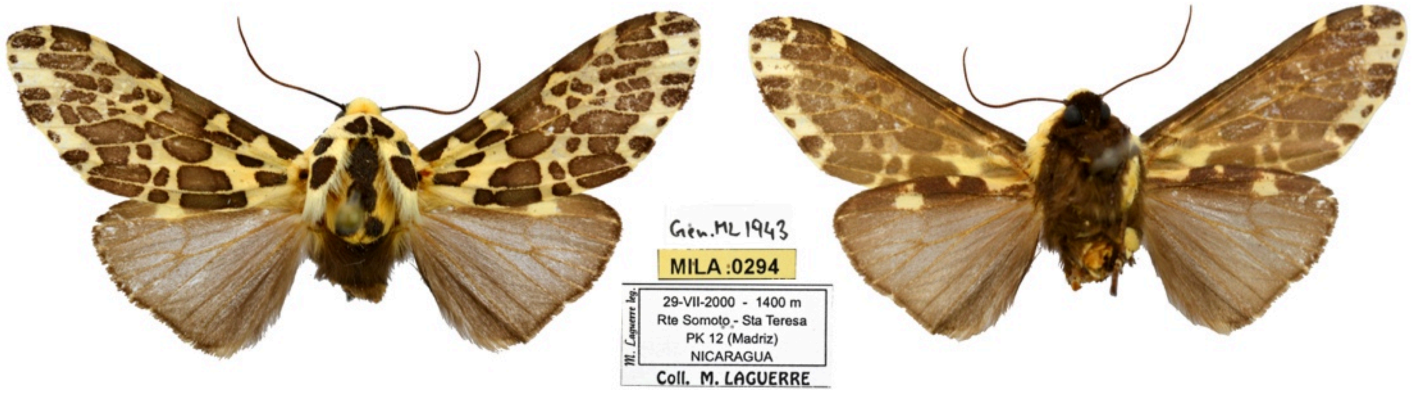


Fig. **20**. Male paratype of *Hypsocompe nubilus* Laguerre **sp**. **nov**. from Nicaragua, Madriz, upperside left and underside right. Labels not to scale.

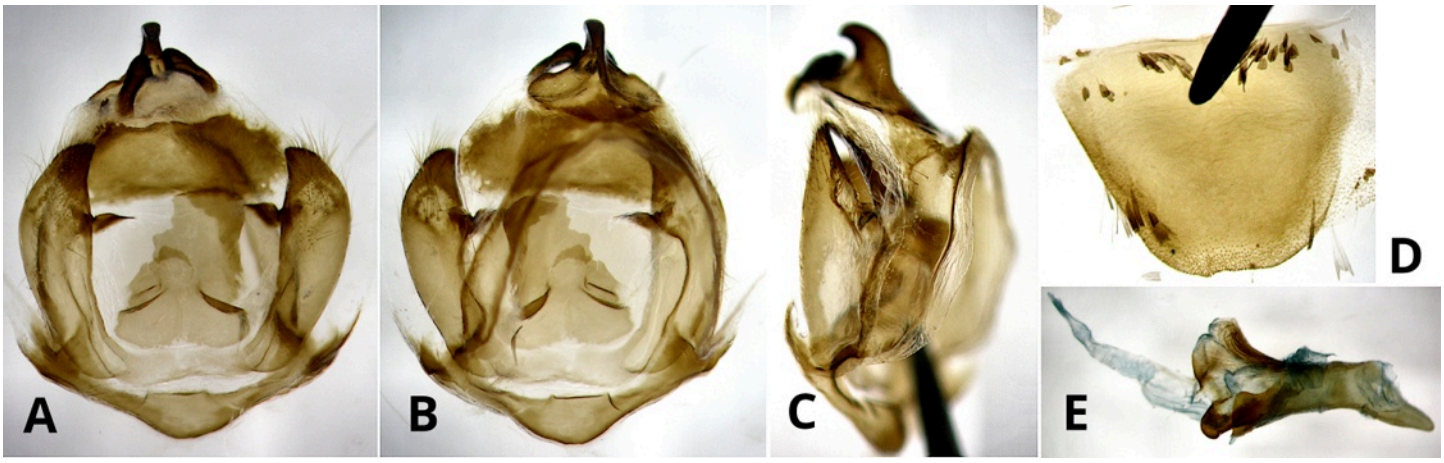


Fig. **21**. Male genitalia of *Hypsocompe nubilus* Laguerre, 2022 from Nicaragua, Madriz. **A**. Ventral view. **B**. Dorsal view. **C**. Lateral view. **D**. Tergite VIII. **E**. Aedeagus.

narrow, strongly sclerotized and shaped as a hook. Below uncus a granulose sclerotized process shaped as a reverse wide "V". Transtilla present as two short sclerotized narrow bars. Vinculum evenly rounded with a short rounded saccus. Juxta prominent and shaped as an hourglass. The aedeagus is short and cylindrical, not strongly sclerotized but displays a wrinkled scobinate vesica bearing near base a spherical sclerotized area and a small area of cornuti near base of ductus ejaculatorius. Caecum penis present and with pointed extremity. Tergite VIII trapezoidal with rounded angles.

Early stages. – Unknown.

Etymology. – From the Latin *nubilus* which means "of a dark colour".

Distribution. – Presently only know at medium altitudes from the mountain range in the North-West of Nicaragua close to the Honduras border.

Discussion. – See preceding species discussion.

Microcompe naumanni Laguerre **sp**. **n**.

BOLD:ADX7149

ZooBank: https://zoobank.org/4DB711D1-9EC5-4727-964B-266B01B910B1

Holotype, ♂, GUATEMALA. HUEHUETENANGO, Cordillera de los Cuchumatanes, Todos Santos Cuchumatán, Xemal, Laguna Ordóñez, 3724 m, 24.IV.2017, N15°30.549' W91°32.893', J. Monzon y S. Naumann *leg*. Gen. ML2886 (light-blue manuscript label), Sample ID MILA 2206 (yellow printed label) – BOLD Process ID ARCTD1342-19. Will be deposited in MNHU.

Paratypes, 5 ♂, same data as holotype, in MLC.

Diagnosis. – A tiny and hirsute species with black forewings stripped with white streaks and bands and very dark grey hindwings.

Male description (Fig. 22)

Antennae short, black and slightly ciliate. Head and thorax very hairy. Frons black and vertex with long white hairs. Tegulae very hairy black. Patagia very hairy black with long dirty white hairs anteriorly. Thorax black very hairy, underside dark grey. Abdomen very hairy upper side, dark grey with a reddish orange lateral band, first segments with side covered by long greyish hairs. Underside creamy-white with the anal tuft black. Femurs of legs reddish-orange. Forewings with rounded apex, black with a thin pattern of creamy-white streaks and bands. The veins slightly lined with yellow. Hindwings plain dark grey, costa with two rectangular dirty white patches, the inner border of the cell slightly suffused with yellow. Underside identical to upper side except the forewings which are dark grey and not black.

Female. – Unknown.

Male genitalia (Fig. 10)

Male genitalia very tiny and not strongly sclerotized. Tergite VIII weakly sclerotized shaped as a truncated triangle. Tegumen as a rounded rectangle. Uncus long and triangular, slightly undulate laterally with a tip shaped as a bird's beak. Valvae small, elongated with a rounded tip, not reaching the base of uncus. Transtilla present as two rounded lobes. Juxta as a rounded rectangular plate. Saccus very small. Aedeagus small, narrow and cylindrical with a very slightly scobinate simple vesica.

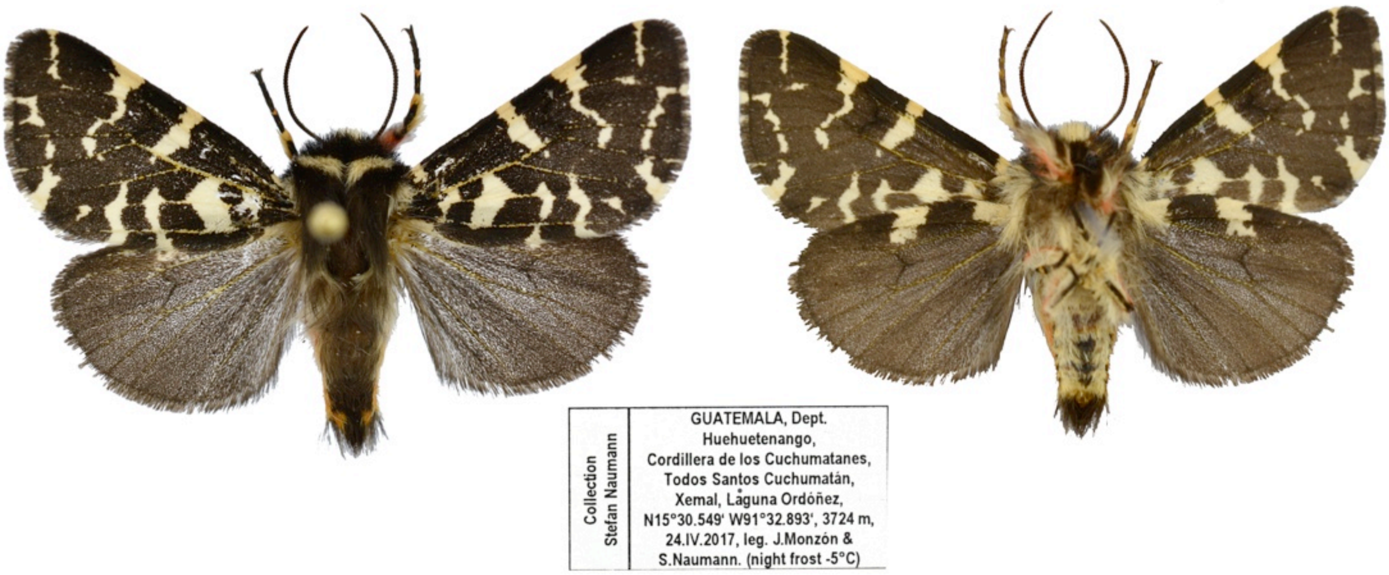
Early stages. – Unknown.

Etymology. – Named in honour of Stefan Naumann who collected the original series in a very difficult area.

Distribution. – Up to now, known only at very high altitudes (above 3,700 m) in the Cuchumatanes Mountains in Western Guatemala (Fig. 23).

Discussion. – A very small species distantly related to other species except maybe *H. minasi* **sp**. **nov**. which is nevertheless at a distance of 10.2 %.

Fig. **23**. Biotope of *Microcompe naumanni* **sp**. **nov**., in the Cuchumatanes Mountains, Guatemala, Huehuetenango, 3724 m. Picture courtesy of S. Naumann.



Collection
Stefan Naumann

GUATEMALA, Dept.
Huehuetenango,
Cordillera de los Cuchumatanes,
Todos Santos Cuchumatán,
Xemal, Laguna Ordóñez,
N15°30.549' W91°32.893', 3724 m,
24.IV.2017, leg. J.Monzón &
S.Naumann. (night frost -5°C)

Fig. **22**. Male paratype of *Microcompe naumanni* Laguerre **sp**. **nov**. from Guatemala, Huehuetenango, upperside left and underside right.

Microcompe minasi Laguerre **sp**. **n**.

BOLD:AAU3638

ZooBank: https://zoobank.org/969E3B4C-A3F6-45AA-9C83-C7E4AD96040F

Holotype, ♂, GUATEMALA. Zacapa, Cerro Monos, 1-3-VI-2009, 2250 m, 15.11593° -89.68541°, J. Monzon *leg*. Gen. ML1944 (white manuscript label), Sample ID MILA 1509 (yellow printed label) – BOLD Process ID ARCTD004-11.

Paratypes

- **2** ♀, same data as holotype, sequenced Sample ID MILA 1510 (yellow printed label) – BOLD Process ID ARCTD005-11 and Sample ID MILA 1511 (yellow printed label) – BOLD Process ID ARCTD006-11. All in MLC.
- **1** ♂, El Progreso, Cerro Piñalon, Cabañas, 1-V-2009, 2568 m, 15.084070° -89.942770°, Monzon y Camposeco *leg*.
- **1** ♂, Zacapa, Cerro Monos, 19-21-V-2010, 2250 m, 15.11593° -89.68541°, J. Monzon, B. Sutton, G. Steck y P. Skelley *leg*., in UVGC.

Diagnosis. – A tiny and very hairy species inhabiting the high altitudes. Forewings mostly black with the veins outlined with yellow. Hindwings plain dark grey. Females noticeably larger with pattern more invaded by white patches including the basal and discal areas on hindwings. Below identical to upper side but forewings background more greyish than black.

Male description (Fig. 24)

Antennae long, thin and black, shortly ciliate Head and thorax very hairy. Frons black and vertex with long whitish hairs. Tegulae very dark brown with two tiny yellowish dots behind the head. Patagia dark greyish brown interspersed with long whitish hairs. Thorax dark greyish brown interspersed with long whitish hairs, underside dark greyish brown and very hairy. Femurs reddish. Forewings almost entirely dark grey with veins outlined with yellow. A restrained pattern of white dots or patches, essentially on costa near apex, on termen close to the margin and on vein CuA_2. Hindwings entirely dark grey except two tiny whitish dots on costa. Underside identical to upper side.

Female (Fig. 24). – Noticeably larger and lighter than the male. Antennae thin and black. On forewings the veins are outlined with orange. The black pattern is identical to the male but much more narrower giving a whitish appearance. A post basal angled white fascia and the postmedian area is spotted with white dots up to the termen. Hindwings greyish with white patches at base and near the anal angle.

Male genitalia (Fig. 25)

Male genitalia tiny and not strongly sclerotized. Tergite VIII weakly sclerotized shaped as a trapezoidal plate. Tegumen ovoid. Uncus long and

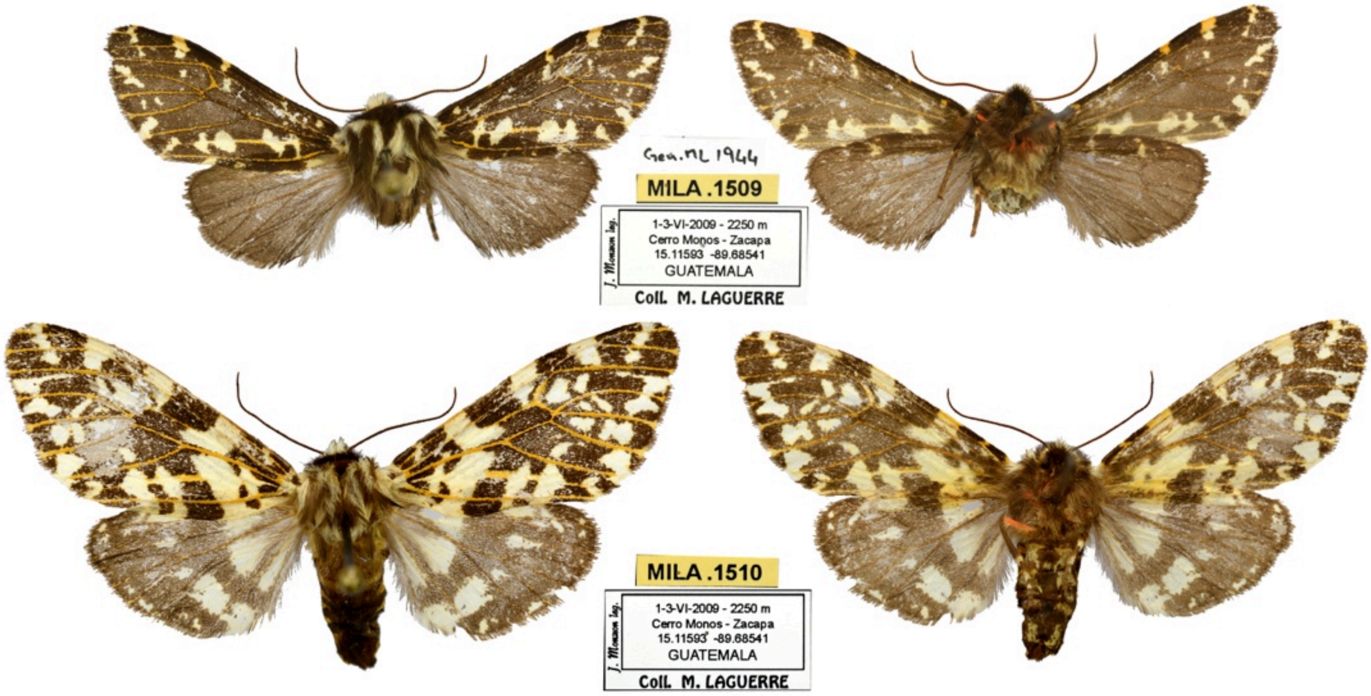


Fig. **24**. Above, male holotype of *Microcompe minasi* Laguerre **sp**. **nov**. from Guatemala, Zacapa; below female paratype, upperside left and underside right. Labels not to scale.

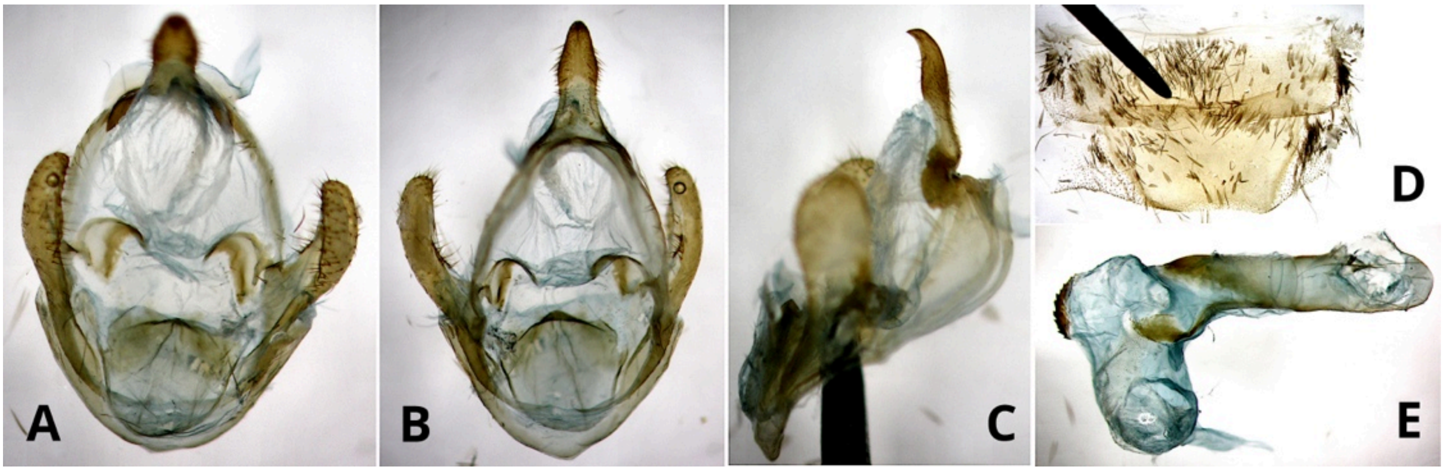


Fig. **25**. Male genitalia of *Microcompe minasi* Laguerre, 2022 from Guatemala, Zacapa. **A**. Ventral view. **B**. Dorsal view. **C**. Lateral view. **D**. Tergite VIII. **E**. Aedeagus.

triangular, slightly undulate laterally with a tip shaped as a bird's beak. Valvae small, elongated with a spatulate tip, not reaching the base of uncus. Transtilla present as two weakly sclerotized circular lobes. Juxta as a subrectangular plate with a wide triangular top. Saccus very small. Aedeagus small, narrow and cylindrical with a very slightly scobinate simple vesica perpendicular to aedeagus. An arched ridge of cornuti at the base of vesica.

Early stages. – Unknown.

Etymology. – By reference to the locality of the type series: Sierra de las Minas, a long mountain range in the East of Guatemala.

Distribution. – Presently only known from high altitudes localities (2200-2600 m) in the Sierra de las Minas.

Discussion. – See preceding species discussion.

Arachnis zacapa Laguerre **sp**. **n**.

BOLD:AAC6783

ZooBank: https://zoobank.org/D7129B42-6089-4C1F-8052-6BD394C9DF7B

Holotype, ♂, GUATEMALA. ZACAPA, El Naranjo, 30-V-2009, 1616 m, J. Monzon *leg*., sequenced with Sample ID MILA 1512 (yellow printed label) – BOLD Process ID ARCTD007-11. Will be deposited in MNHN.

Paratypes (3 ♂, 2 ♀)

1 ♂, JALAPA, Pino Dulce, 2-VI-2009, 2360 m, J. Monzon *leg*.

2 ♂ & **1** ♀, ZACAPA, El Naranjo, 30-V-2009, 1616 m, J. Monzon *leg*. One ♂ dissected, Gen. ML1964. A sequenced female Sample ID MILA 1513 (yellow printed label) – BOLD Process ID ARCTD008-11.

1 ♀, BAJA VERAPAZ, Santa Rosa, 14-V-2007, 1580 m, M. Laguerre *leg*., Sample ID MILA 03812 (yellow printed label) – BOLD Process ID ARCTA662-107. All in MLC.

Diagnosis. – Very similar to *Arachnis aulaea* from southern USA. Nevertheless, besides the sequence, the genitalia and the locality are diagnostic. A very easily recognized species with zebra slate grey pattern on a white background on forewings and a black pattern on bright red background on hindwings. The abdomen is also strikingly red on sides.

Male description (Fig. 26)

Antennae thin and black, shortly ciliate. Head with frons slate grey, vertex slate grey bordered anteriorly with white. Palpi short red and white. Tegulae slate-grey, lined with black and then short beige hairs. Patagia slate-grey lined with black and bordered by white hairs. Thorax with a longitudinal large slate-grey band, lined with black and bordered externally by white interspersed with reddish hairs. Underside white and hairy, Femora and fore coxae red. Legs annulated with a mixture of slate grey and reddish orange. Forewings narrow and elongated with a pinkish white background. A dense slate-grey zebra pattern covers the wing entirely. Hindwings rounded and shorter with a bright red background. A dense black pattern across the wings leaving only a red band along margin, an interrupted band in postmedian position and a large spot below cell. The margin is thinly black. Underside pattern identical to upper side, except on the forewings were the white patches are replaced by red patches and on hindwings the red patches on coastal are replaced by pinkish white patches.

Female (Fig. 26). – Larger than male and with rounded wings but otherwise with an identical pattern upper and underside.

Male genitalia (Fig. 27)

Tergite VIII as a rounded triangular plate. Uncus wide at base and flat and then abruptly narrowed. Extremity bent ventrally and hook shaped. Tegumen subrectangular, protruding on each side. Vinculum wide and saccus concave medially. Juxta large and ovoid. Valvae long and elongated, strongly narrowed and undulated in the last half, the tip slightly spatulate. In the middle a strong tooth pointing inwardly at right angle. Aedeagus cylindrical, slightly bent, caecum penis present but short. Vesica single lobed, with tiny spicules at base and with an area of small teeth in middle.

Early stages. – Unknown.

Etymology. – A noun in apposition by reference to the locality of the type series.

Distribution. – Presently only known from the Atlantic slope of the Central Range at medium to high altitudes (2400 m) in the Departments of Zacapa, Jalapa and Baja Verapaz.

Discussion. – Despite its similarity with specimens from Mexico and Southern USA, this species aligns at more than 5 % from all sequenced specimens of *Arachnis aulaea*, in fact between 5.2 and 6.2 %, justifying the species status for this entity.

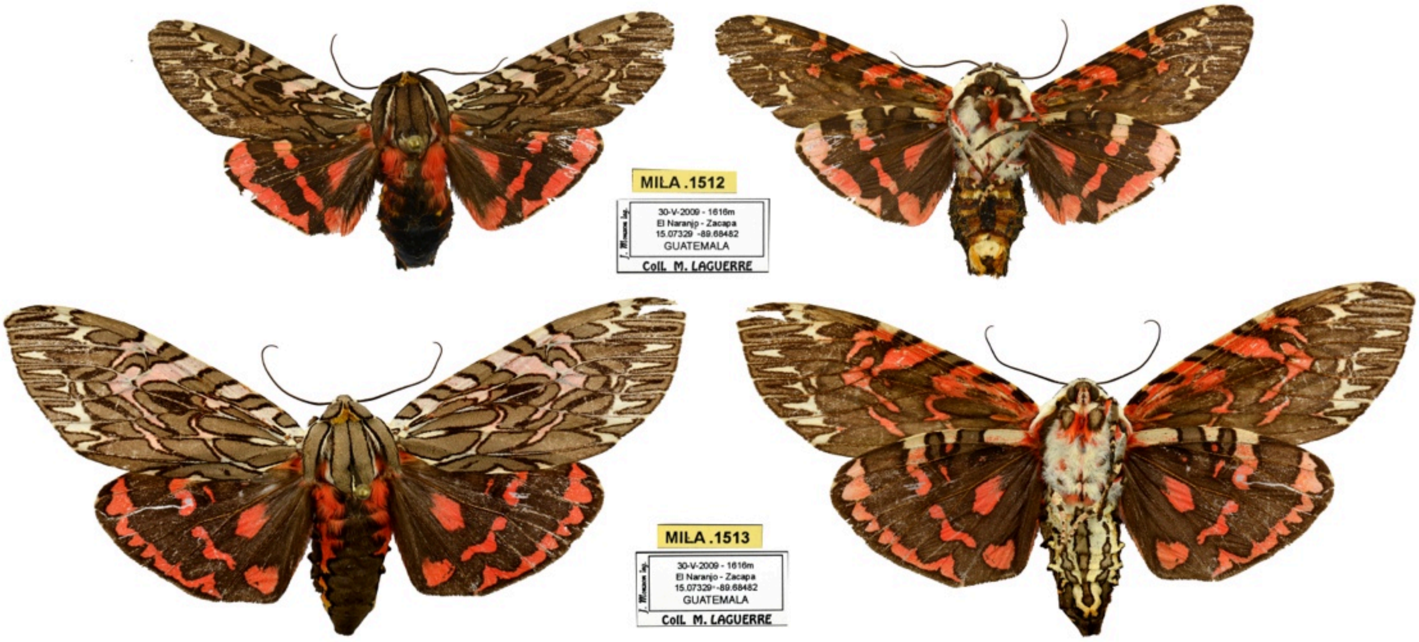


Fig. **26**. Above male holotype of *Arachnis zacapa* Laguerre **sp**. **nov**. from Guatemala, Zacapa; below female paratype, upperside left and underside right. Labels not to scale.

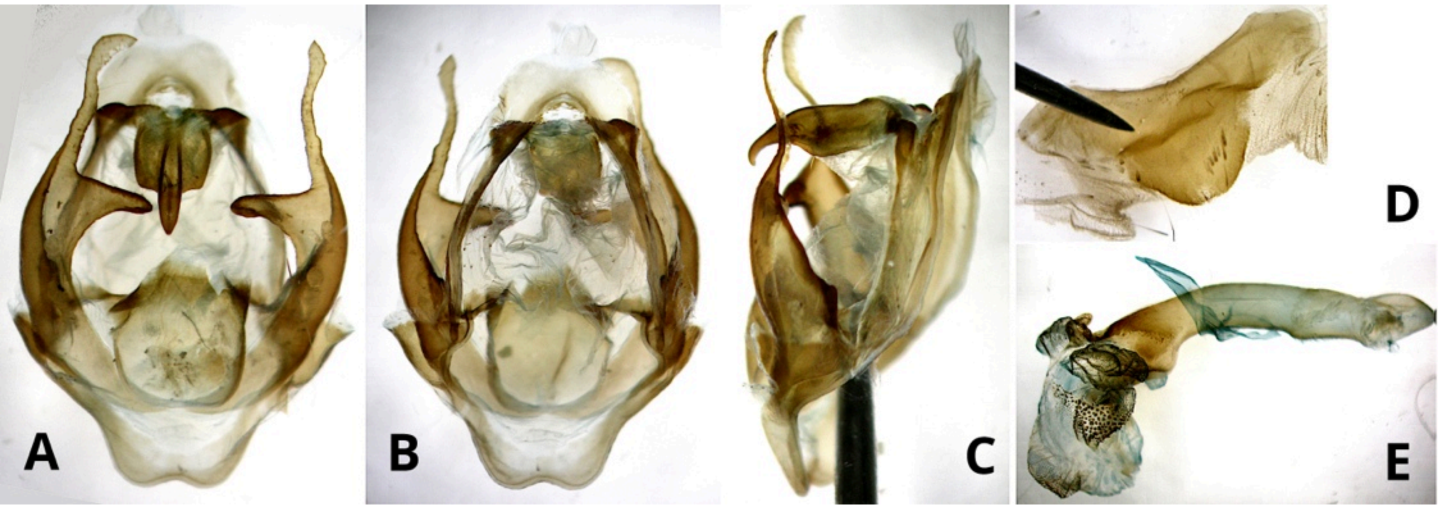


Fig. 27. Male genitalia of *Arachnis zacapa* Laguerre, 2022 from Guatemala, Zacapa. **A**. Ventral view. **B**. Dorsal view. **C**. Lateral view. **D**. Tergite VIII. **E**. Aedeagus.

Fulvocompe guatemalensis Laguerre **sp. n**

BOLD:AAE1394

ZooBank: https://zoobank.org/1A0C04C0-D72F-48DC-B9A4-7F6EAA748382

Holotype, ♂, GUATEMALA. SUCHITEPÉQUEZ, Finca Tarralès, 7-V-2007, 1030 m, 14°32.00' N 91°08.803' W, M. Laguerre *leg*. Dissected, Gen. ML1714. Sequenced, Sample ID MILA 1005 (yellow printed label) – BOLD Process ID ARCTB346-08. Will be deposited in MNHN.

Paratypes (42 ♂, 2 ♀)

GUATEMALA

2 ♂, SUCHITEPÉQUEZ, same data as holotype, one was sequenced, Sample ID MILA 1025 (yellow printed label) – BOLD Process ID ARCTB366-08. All in MLC.

3 ♂, SUCHITEPÉQUEZ, Pente sud du volcan Atitlan, Réserve Refugio del Quetzal, 13-14-IX-2010, 1556 m, 14°32'52,6" N 91°11'37,4" W, B. Vincent *leg*.

2 ♂, BAJA VERAPAZ, Ranchitos del Quetzal, Route de Guatemala City à Coban, Km 160, 3,4 kms avant Purulha, 02-IX-2010, 1634 m, 15°12'57,3" N 90°13'08,5" W, B. Vincent *leg*.

1 ♂, SUCHITEPÉQUEZ, Réserve Volcan Atitlan, Los Tarrales (14 kms nord Patulul), 18-X-2014, 1020m, 14°32'02' N 91°08'51" W, B. Vincent *leg*.

1 ♂, same data but 12-IX-2010, B. Vincent *leg*.

3 ♂, SAN MARCOS, Refugio del Quetzal, Bojonal, Route San Marcos à La Fraternidad, Km 168.5, 20-X-2014, 1800 m, 14°56'17" N 91°52'27" W, Quentin Rome *leg*. All in BVC.

2 ♂, SUCHITEPÉQUEZ, Finca Mocà, Volcan Atitlan, 5-V-2000, 1800 m, J. Monzon *leg*.

2 ♂, same data but V-2000. 1 ♂, BAJA VERAPAZ, Santa Rosa, Finca Miramundo, 28-V-1999, Schuster, Bailey, Monzon, Cano, Villaloro leg.

1 ♂, HUEHUETENANGO, Soloma, Cerro Cruz Martin, 16-V-2002, 1800 m, J. Monzon *leg*.

1 ♂, BAJA VERAPAZ, Km 156 on rd. to Coban, VII-1992, 1500 m, P. Hubbell *leg*.

1 ♂, BAJA VERAPAZ, Purulha, Biotopo del Quetzal, 28-IX-2000, 1600 m, Monzon y Copaland *leg*.

12 ♂, SUCHITEPÉQUEZ, Santa Barbara, Refugio del Quetzal, UVG, 1600 m, 14.54175985 N 91.19729498 W,
7-VII-2008 (1 ♂),
20-30-IX-2007 (2 ♂),
8-15-X-2007 (3 ♂),
20-25-IV-2008 (3 ♂),
30-VII-2008 (2 ♂),
20-IX-2009 (1 ♂).

All in UVGC.

2 ♂, same data but 29-III-2009 and 23-VII-2009, Camposeco y Monzon *leg*., will be deposited in YPM.

7 ♂, **1** ♀, same data but 9-10-V-2016.

3 ♂, same data but 6-VI-2019.

2 ♂, **1** ♀, same data but 27-III-2017. All in Maishe Dickman collection.

Diagnosis. – Very difficult to distinguish from the species of the *F. nemophila/neurophylla* complex. The locality and the male genitalia are diagnostic, as well as the sequence.

Male description (Fig. 28)

Antennae thin, black and shortly ciliate. Head with frons dark brown, vertex beige. Palpi, short and dark brown. Tegulae, patagia and thorax beige and hairy. Abdomen brownish orange with each segment, except the first two, bearing a large black band, below entirely brownish orange. Forewings mustard yellow with a complex pattern of black lines and spots thinly lined with yellowish-beige. The veins contrasting, yellowish beige. On costa four wide black elongated streaks. A post basal black undulated line below cell. Then a pair of undulated lines of black streaks going from inner margin to costa with a large complex of spots at the end of cell. A submarginal line of oval black spots from near tornus to near apex. Each spot crossed in the middle by a yellowish vein and circled by a yellowish halo. Hindwings light mustard yellow with a transverse median line of diffuse greyish spots and a submarginal line of oval greyish spots from anal angle to apex, each spot being crossed by a yellowish vein. Underside identical to upper side but background lighter on forewings.

Female. – Similar to male but larger and darker.

Male genitalia (Fig. 29)

Genital capsule ovoid. Segment VIII weakly sclerotized. Tergite VIII trapezoidal. Uncus wide and flattened. Laterally with a hooked tip. Vinculum rounded. Saccus narrow and pointed. Valvae short hardly reaching the basis of uncus. They are wide and slightly bent inwardly, shaped as a sickle with a blunt and strong tooth in middle pointing inward. Juxta wide, narrowed at 2/3 and deeply concave on top. Transtilla present as two narrow horizontal bars. Aedeagus cylindrical slightly bent in middle. Caecum penis present. A single lobed and sinuous vesica, bearing a dense area of thin cornuti at base and along a longitudinal line on basal third of the vesica.

Early stages. – Unknown.

Etymology. – By reference to the type locality.

Distribution. – Presently known only from Guatemala on the two sides of the Central Range and at mid-altitudes. In BVC there is a single male collected in Colima (Mexico) but the habitus is lighter, less contrasted and more study and material will be necessary to insure a correct identification.

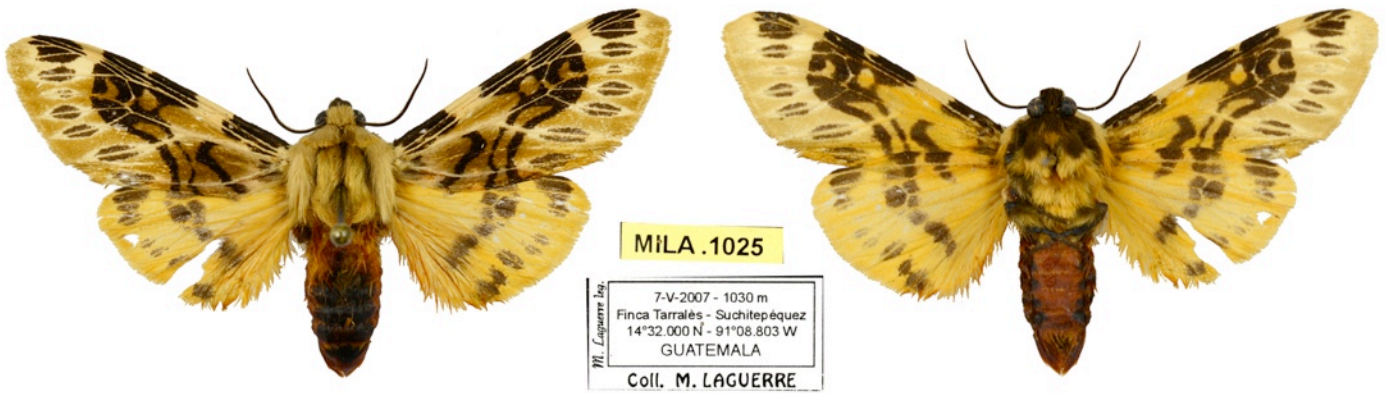


Fig. **28**. Male paratype of *Fulvocompe guatemalensis* Laguerre **sp**. **nov**. from Guatemala, Suchitépéquez, upperside left and underside right. Labels not to scale.

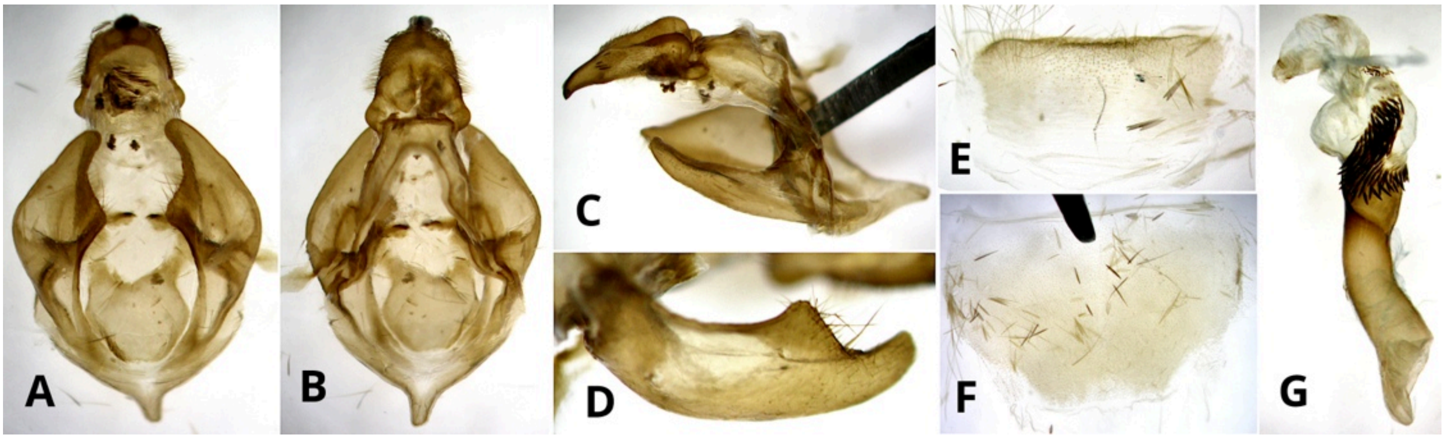


Fig. **29**. Male genitalia of *Fulvocompe guatemalensis* Laguerre **sp**. **nov**. from Guatemala, Suchitépéquez. **A**. Ventral view. **B**. Dorsal view. **C**. Lateral view. **D**. View of the valva. **E**. Sternite VIII. **F**. Tergite VIII. **G**. Aedeagus.

Discussion. – Despite a habitus similar to many species of the complex *nemophila/neurophylla*, the barcode of this species is well remote from the other species of the group: at least 6.4 % from the entity found in Costa Rica and at least 8.1 % from several entities present in the Andean Cordillera. The large genetic difference from specimens from Costa Rica is really striking despite the short distance between the two countries. The large difference in the respective fauna of these two countries has been already found several times, especially for the subtribe Pericopina for which it is hardly possible to find two species in common (Laguerre, 2017).

Annex 3 - Review of the Cuban *Hypercompe* species

In 1866 Grote described a new species of *Hypercompe* from Cuba under the name *albicornis* on account of the color of the antennae (Grote, 1866). This species was described on a series of 4 male and 2 female syntypes deposited in ANSP under reference number 7703 where they remain. In 1867 the same Grote described a second species from Cuba named *cyaneicornis* based on a fragment of a male specimen. This species can be easily distinguished from *albicornis* by its "dark bluish black antennae" (Grote, 1867). It was not possible to find the fragments of the type (Laguerre & Vincent, 2014) but they are maybe in a Cuban museum. In 1901, without any explanation, Hampson put this last species into synonymy with *H. decora* (Walker, 1855) from Dominican Republic. During various visits in MNHN and MWM we found several fresh specimens of two species collected in Cuba one with white antennae and the second with bluish-black antennae. Some specimens were then successfully sequenced within the BOLD project and compared to a large data base of Neotropical Arctiinae. From this comparison it is clear that these two species are different, and different from all other species collected in the Greater Antilles, especially from *H. decora* collected in Dominican Republic. A small tree extracted from the large data base is provided below (see Fig. 30). The distance between the two Cuban species is 6.3 % and clearly the two species are very different from *H. decora* from Dominican Republic. Moreover the closest species to *H. decora* is *H. albicornis* (5.5 %) and not *H. cyaneicornis* (6.2 %) which in turn is not far from *H. perplexa* (Schaus, 1911) a species inhabiting the southern part of Central America.

As a consequence *Hypercompe cyaneicornis* (Grote, 1867) is reinstated as ***bona species***. Below we will re-describe the two Cuban species and illustrate their male genitalia.

Hypercompe (Hypercompe) albicornis (Grote, 1866)

BOLD:AAZ3012

Material examined

CUBA

1 ♂, GRANMA, Llano del Pino, 15-IV-2018, 3056', 20°00'06" N 77°00'54" W, J. Haxaire *leg*., in MLC.

2 ♂, HOLGUIN, Calixto Garcia, Buena Ventura, 200 m N. Loma de Guayabo, Trockenwald, X-1998, 525 m, 20°.57 N 75°.74 W, J.P. Rudloff *leg*., MWM in ZSM. Sample-ID: BEVI1476, BOLD Process-ID: ARCTD171-11 & Sample-ID: BEVI1477, BOLD Process-ID: ARCTD172-11.

1 ♂, HOLGUIN, Majari, 1883, Gen. ML2776, Coll. Shafer, in MNHN.

Diagnosis. – This is a small species with rounded wings (male wingspan around 36 mm).

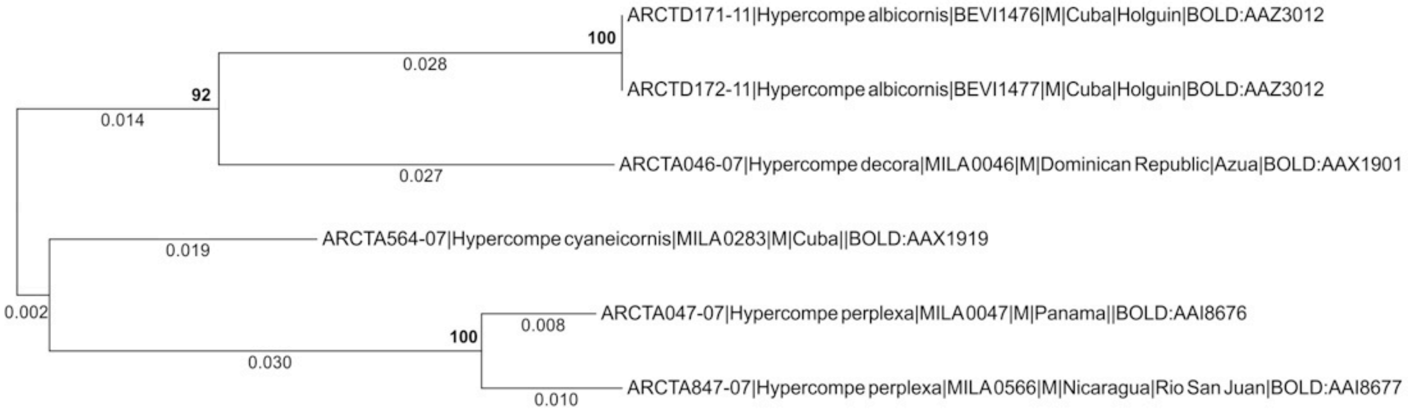

ARCTD171-11|Hypercompe albicornis|BEVI1476|M|Cuba|Holguin|BOLD:AAZ3012
ARCTD172-11|Hypercompe albicornis|BEVI1477|M|Cuba|Holguin|BOLD:AAZ3012
ARCTA046-07|Hypercompe decora|MILA0046|M|Dominican Republic|Azua|BOLD:AAX1901
ARCTA564-07|Hypercompe cyaneicornis|MILA0283|M|Cuba||BOLD:AAX1919
ARCTA047-07|Hypercompe perplexa|MILA0047|M|Panama||BOLD:AAI8676
ARCTA847-07|Hypercompe perplexa|MILA0566|M|Nicaragua|Rio San Juan|BOLD:AAI8677
100
0.028
92
0.014
0.027
0.019
0.002
100
0.008
0.030
0.010

Fig. **30**. Maximum-Likelihood tree (SAITOU & NEIL 1987) for the studied group. Distances in % and bootstrap (500 replications) supports (in bold and only if larger than 70 %) are given near each branch (obtained with MEGA7, see KUMAR *et al*. 2016).

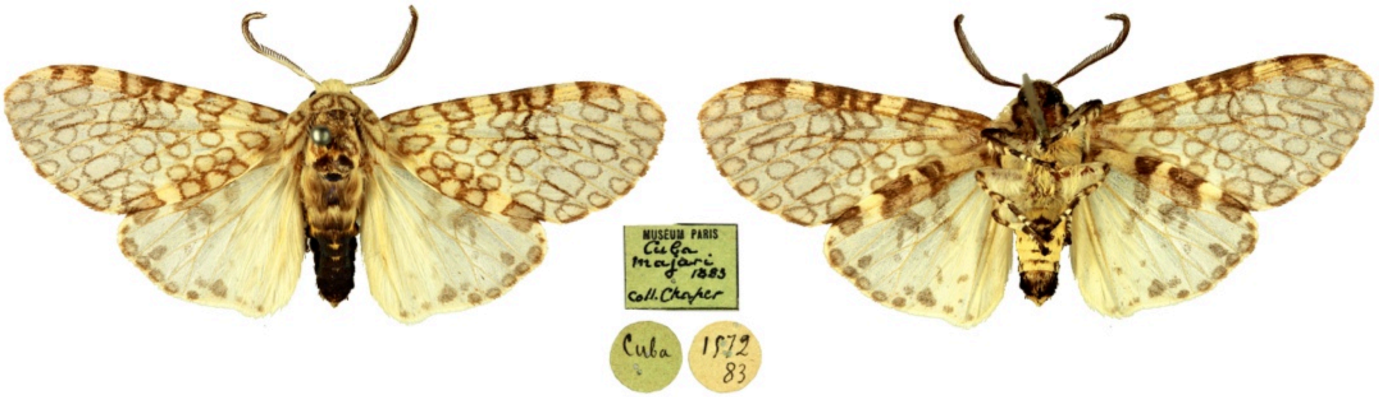


Fig. **31**. *Hypercompe albicornis* (Grote, 1866) male from Cuba, upperside on left and underside on right.

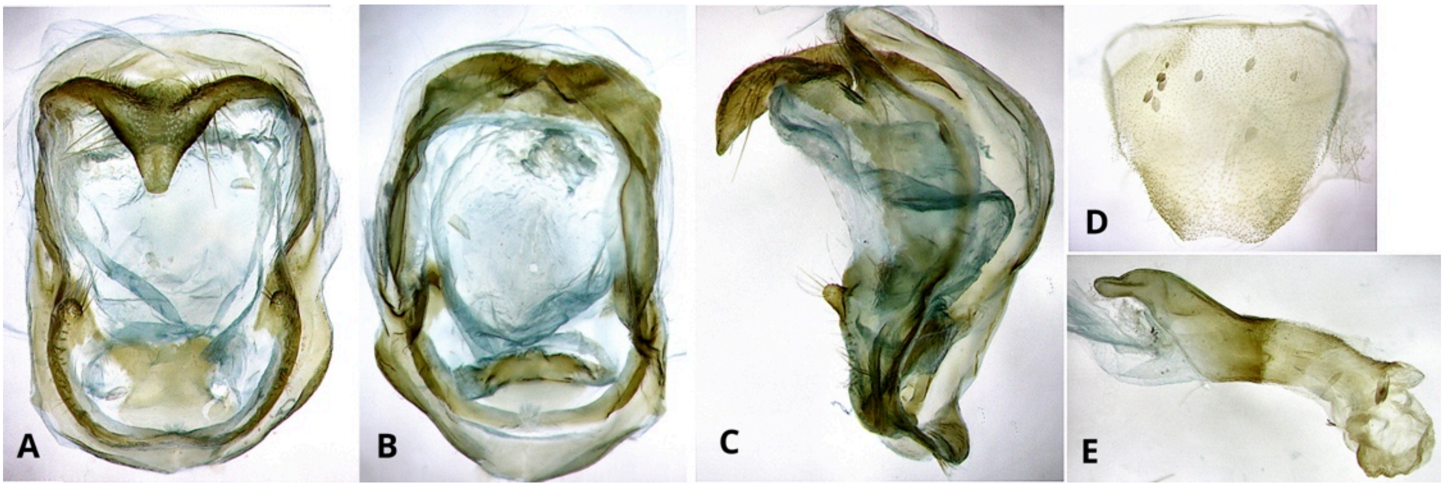


Fig. **32**. *Hypercompe albicornis* (Grote, 1866) from Cuba, genitalia male. **A**. Ventral view. **B**. Dorsal view. **C**. Lateral view. **D**. Tergite VIII. **E**. Aedeagus.

Male description (Fig. 31)

Head white, antennae with the shaft whitish. Tegulae whitish with a black circle. Patagia whitish, lined with black and centred with a small black circle. Thorax whitish with some grey pattern. Abdomen with the first segments hairy and greyish, then black posteriorly and yellow anteriorly. Last segment and anal tuft black. Below the abdomen is dull yellowish with the last segment and anal tuft grey. Forewings slightly translucent, whitish and rounded. The usual pattern of lines of dark spots is here restricted to lines of thin circular black lines, giving a densely ocellate pattern. Hindwings whitish with some blurred dark patches on costa and at the end of cell. A marginal line of 5 to 6 small black ovals starting from apex followed by a short line of 4 small dark spots down to tornus slightly shifted basally. Underside similar to upperside but pattern more contrasted with a yellowish hue on the costa of the four wings.

Male genitalia (Fig. 32)

Tergite VIII almost triangular with the external side concave in middle. Tegumen almost rectangular, with rounded corners and slightly constricted in middle. Uncus as a large triangle bent ventrally, with a blunt extremity. Valvae almost absent reduced to a small digitate lobe covered with hairs. A very short saccus bent dorsally. Juxta shaped as a wide "X". Aedeagus cylindrical, slightly bent in middle. Caecum penis present, spoon-like. Vesica slightly scobinate with a small lobe dorsally.

Hypercompe (Hypercompe) cyaneicornis (Grote, 1867) **bona species**

BOLD:AAX1919

Material examined

CUBA

1 ♂, SANTIAGO DE CUBA, Station météo de la Gran Piedra, 20-VII-1996, 1130 m, J. Haxaire *leg*.

1 ♂, **1** ♀, Gran Piedra, 16-VIII-1996, H. Descimon *leg*., the male is dissected: Gen. ML962. All in MNHN.

1 ♂, SANTIAGO DE CUBA, Sierra de Maestra, Rio Seco (Chivirico), VI-1994, 400 m, P. Bleuzen *leg*., Sample-ID: MILA 0283 (yellow printed label), BOLD Process-ID: ARCTA564-07.

2 ♂, GRANMA, Alto de Meroño, 14-IV-2018, 3104', 19°29'55" N 77°00'35" W, J. Haxaire *leg*. One is dissected: Gen. ML3251 (blue manuscript label).

1 ♂, GRANMA, Llano del Piño, 13-IV-2018, 3056', 20°00'06" N 77°00'54" W, J. Haxaire *leg*. All in MLC.

Diagnosis. – This is a larger and more robust species (male wingspan around 45-47 mm).

Male description (Fig. 33)

Head white, antennae bipectinate with the shaft bluish black. Tegulae white with a black circle or spot. Patagia white, centred with a small black circle. Thorax white with six black spots or circles. Abdomen with the first segments hairy and dark greyish, then black posteriorly almost to the anal tuft, yellowish lines are often visible. Below the pattern is variable: underside can be white, orange or partly white and orange but the last segment and anal tuft are black. Forewings white slightly elongated. The usual pattern of lines of dark spots is here present, generally the spot are black on the outside half and reduced to thin circles in the basal half, but this is variable. Hindwings almost entirely white sometimes with a few greyish spots near costa and/or tornus. Anal angle elongated. Underside similar to upperside but pattern more contrasted especially near costa which displays a yellowish hue.

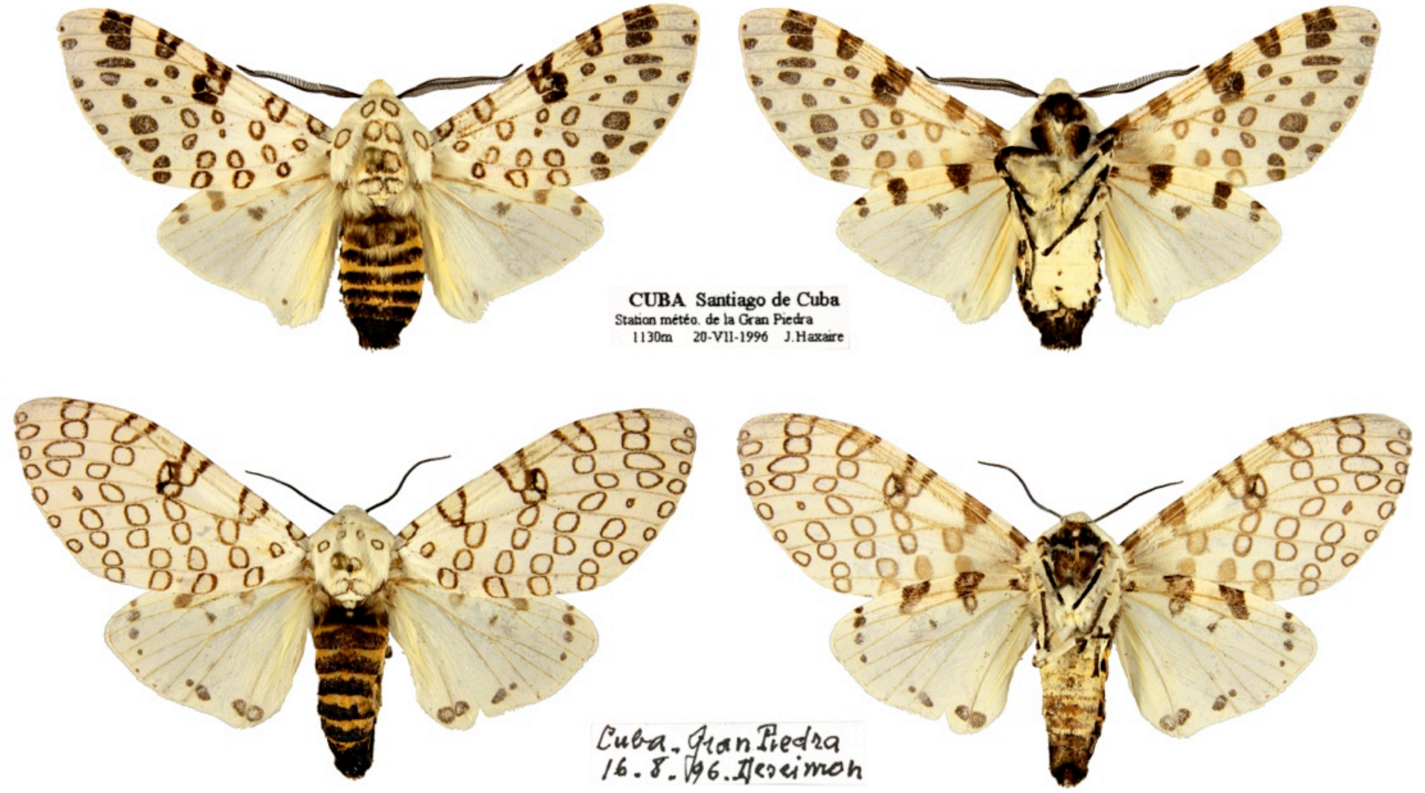


Fig. 33. *Hypercompe cyaneicornis* (Grote, 1867) male from Cuba, upperside on left and underside on right, male above and female below.

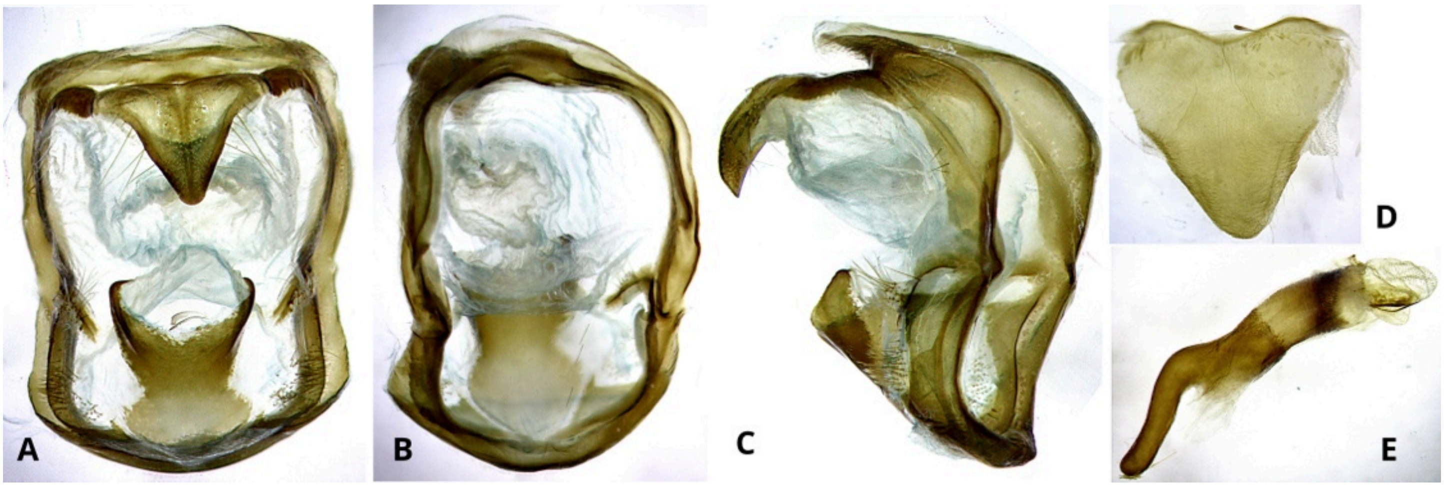


Fig. 34. *Hypercompe cyaneicornis* (Grote, 1867) from Cuba, genitalia male. **A**. Ventral view. **B**. Dorsal view. **C**. Lateral view. **D**. Tergite VIII. **E**. Aedeagus.

Female description (Fig. 33)

Larger with rounded wings. Antennae black and ciliate. Ornamentation of body and wings similar to male but all black dots replaced by circular patches upper side and underside. Hindwing anal angle almost rounded.

Male genitalia (Fig. 34)

Tergite VIII heart-shaped. Tegumen as an almost perfect rectangle slightly constricted in middle. Uncus as a large triangle bent ventrally. Valvae almost absent reduced to a small digitate translucent lobe covered with long setae. Juxta shaped as an hour-glass, largely concave on top. On each side a small area covered with short setae. Aedeagus cylindrical, slightly bent in middle. A very long caecum penis, bent at 120° near beginning and then slightly undulate. Vesica short, slightly scobinate with a small sclerotized area ventrally.

Annex 4 - Note and correction concerning my previous paper entitled: "Description of two new genera and four new species of Arctiinae from the Neotropical fauna"

In this paper (Laguerre, 2019) I described a new species under the name *Hypercompe tirolensis* from a small series of specimens housed in the Witt Museum (München, Germany) and allegedly collected in Dorf Tirol (Espirito Santo, Brazil) by my colleague Hubert Thöny. When he received the PDF draft, H. Thöny immediately sent me a message to explain that he does not remember having collected this species in Brazil and that the locality was very likely wrong. As there were 4 specimens with identical labels, it seems that a mislabeling was very unlikely. Nevertheless we checked all Seitz's volumes for Arctiinae and finally we found that this species is in reality *Diacrisia* (now *Spilosoma*) *cymbalophoroides* Rothschild, 1910 from Lesser Sunda Islands. The genitalia of Arctiina being very homogeneous it was very difficult to suspect a problem but we must consider now that *Hypercompe tirolensis* is just a synonym of *Spilosoma cymbalophoroides* (**n. syn.**) and this species must be withdrawn from the Brazilian and the Neotropical fauna and indeed it is not considered in the present study.

Acknowledgements

I wish to thank Paul HEBERT (CCDB, Guelph, Canada) for access to the BOLD project and providing very efficient, competent and quick DNA barcoding, and Rodolphe ROUGERIE (Biodiversity Institute of Ontario, University of Guelph, Ontario, Canada) for his help and his technical and scientific support in editing and compiling the hundreds of various sequences involved in the ARCT projects.
Also my thanks to Thomas Witt and Thomas Greifenstein (München, Germany) for giving me access to their invaluable collection of Neotropical Arctiinae and for the loan of several very interesting species.
A very special thanks to Axel Hausmann (ZSM, München) for allowing several specimens from the Thomas Witt Collection to be sequenced.
Thanks to Maishe Dickman and Faustino Camposeco for support for collecting the specimens. Also Universidad del Valle, specially Jack Schuster for support and Consejo Nacional de Areas Protegidas CONAP for research and collecting permits.
I wish to thank Thibaud Decaëns for sharing his precious data from Brazil.
Special thanks to Christian Gibeaux for his dissections of important specimens.
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Résumé

Laguerre M., 2023. – Révision au niveau générique du genre *Hypercompe* Hübner, [1818] et des genres proches avec la description de nouveaux genres et de nouvelles espèces (Lepidoptera: Erebidae: Arctiinae). *Faunitaxys*, 11(75): 1 – 34.

Le genre *Hypercompe* Hübner, [1818] et les genres proches (*Arachnis* Geyer, 1837 and *Leichosila* Schmidt, 2009) sont révisés au niveau générique. A la suite d'un arbre de distances contenant 1065 codes-barres le groupe est maintenant distribué entre dix genres différents dont six (*Hypsocompe, Oxyptera, Stictocompe, Microcompe, Testaptera* and *Fulvocompe* Laguerre **gen**. **nov**.) et un sous-genre (*Pseudocompe* Laguerre **subgen**. **nov**.) sont décrits comme nouveaux après une étude précise des genitalia. A la suite de cette classification huit nouvelles espèces sont décrites : *Hypercompe (Hypercompe) pantepui* Laguerre **sp**. **n**. du Venezuela, *Hypsocompe oaxaca* Laguerre **sp**. **n**. du Mexique, *Hypsocompe quetzali* Laguerre **sp**. **n**. du Guatemala, *Hypsocompe nubilus* Laguerre **sp**. **n**. du Nicaragua, *Microcompe naumanni* Laguerre **sp**. **n**. du Guatemala, *Microcompe minasi* Laguerre **sp**. **n**. du Guatemala, *Arachnis zacapa* Laguerre **sp**. **n**. du Guatemala and *Fulvocompe guatemalensis* Laguerre **sp**. **n**. également du Guatemala. Une révision des *Hypercompe* Cubains termine cette étude.

Mots-clés. – Arctiinae, Arctiini, Arctiina, *Hypercompe*, *Arachnis*, *Leichosila*, nouveau genre, nouvelle espèce, code-barre, COI, faune néotropicale.

Fig. **35**.Tapanti National Park, Costa Rica, 1630 m. A locality very rich in Costa Rican endemic species.

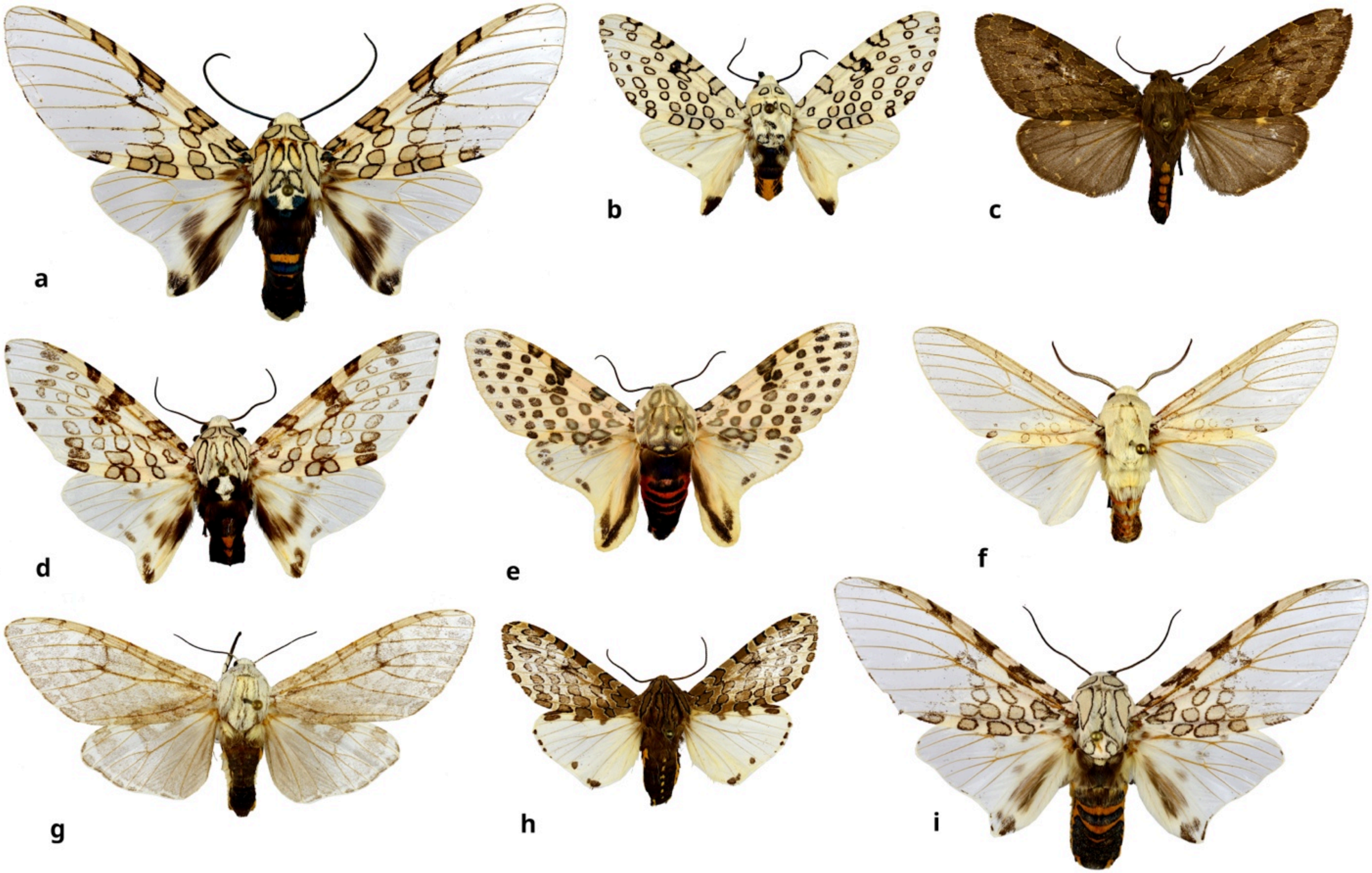

Plate 1. Genus *Hypercompe*, sub-genus *Hypercompe*.

a. *H. (Hypercompe) robusta* (Dognin, 1889) ♂. **b**. *H. (Hypercompe) decora* (Walker, 1855) ♂. **c**. *H. (Hypercompe) obtecta* (Dognin, 1907) ♀. **d**. *H. (Hypercompe) perplexa* (Schaus, 1911) ♂. **e**. *H. (Hypercompe) nigriplaga* (Walker, 1855) ♂. **f**. *H. (Hypercompe) muzina* (Oberthür, 1881) ♂. **g**. *H. (Hypercompe) gaujoni* (Dognin, 1889) ♀. **h**. *H. (Hypercompe) indecisa* (Walker, 1855) ♂. **i**. *H. (Hypercompe) peruvensis* (Hampson, 1901) ♂.

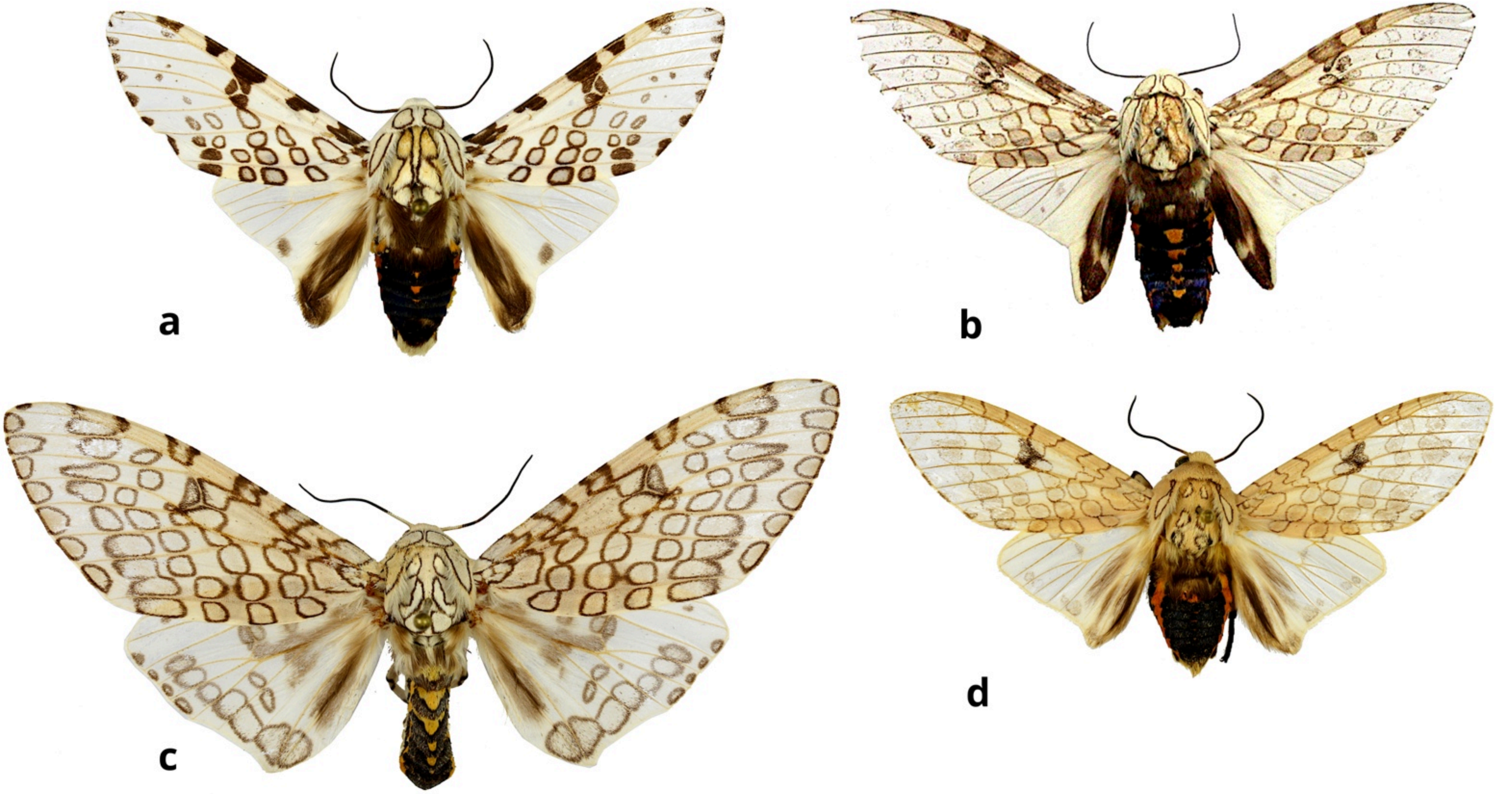

Plate 2. Genus *Hypercompe*, sub-genus *Pseudocompe* **subgen**. **nov**.

a. *H. (Pseudocompe) cunigunda* (Stoll, [1781]) ♂. **b**. *H. (Pseudocompe) campinasa* (Schaus, 1938) ♂. **c**. *H. (Pseudocompe) abdominalis* (Walker, 1865) ♀. **d**. *H. (Pseudocompe) mielkei* Watson & Goodger, 1986 ♂.

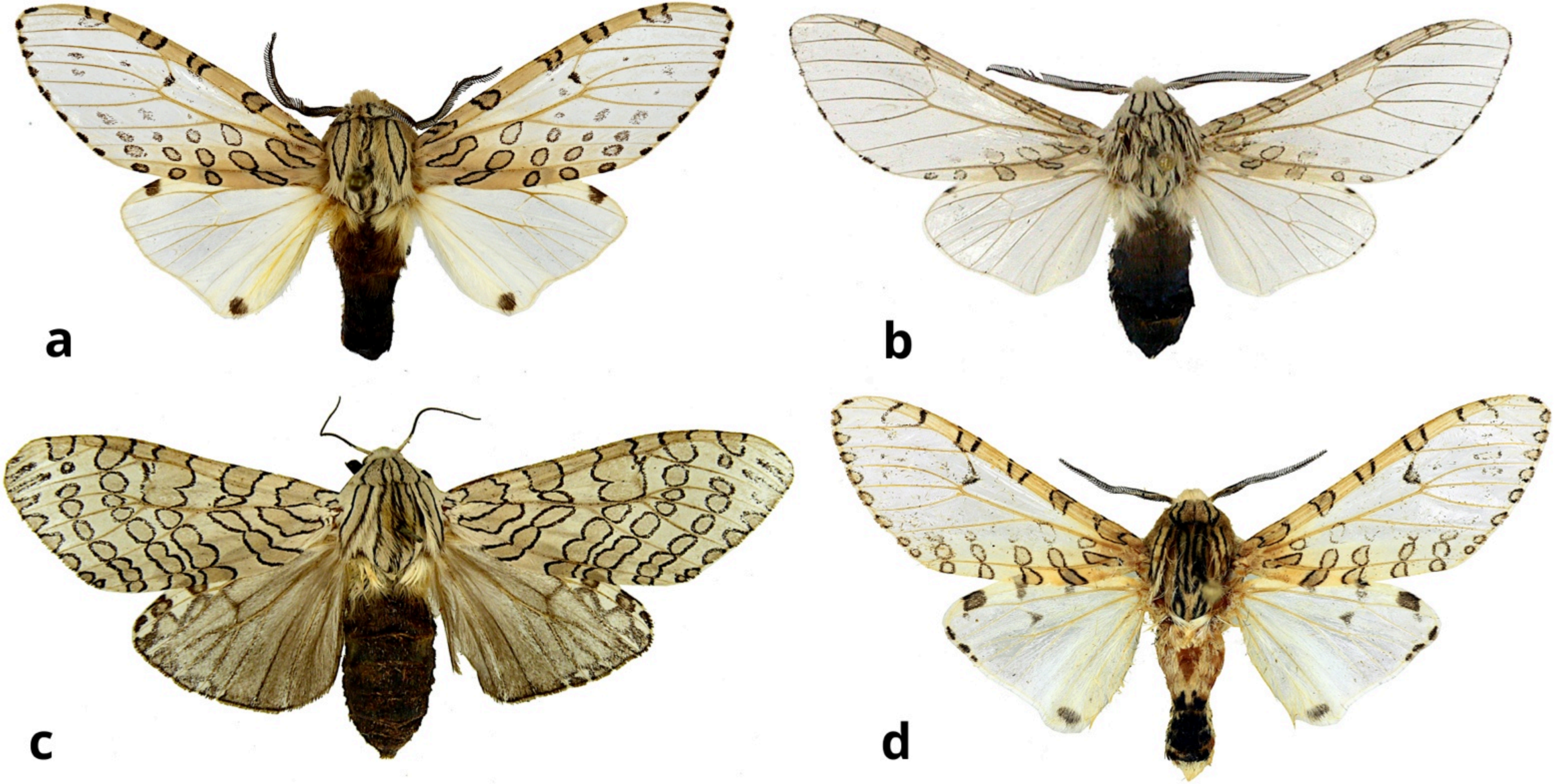

Plate 3. Genus *Catenina.*

a. *Catenina hambletoni* (Schaus, 1938) ♂. **b**. *Catenina heterogena* (Oberthür, 1881) ♂. **c**. *Catenina castronis* (Strand, 1919) ♀. **d**. *Catenina mus* (Oberthür, 1881) ♂.

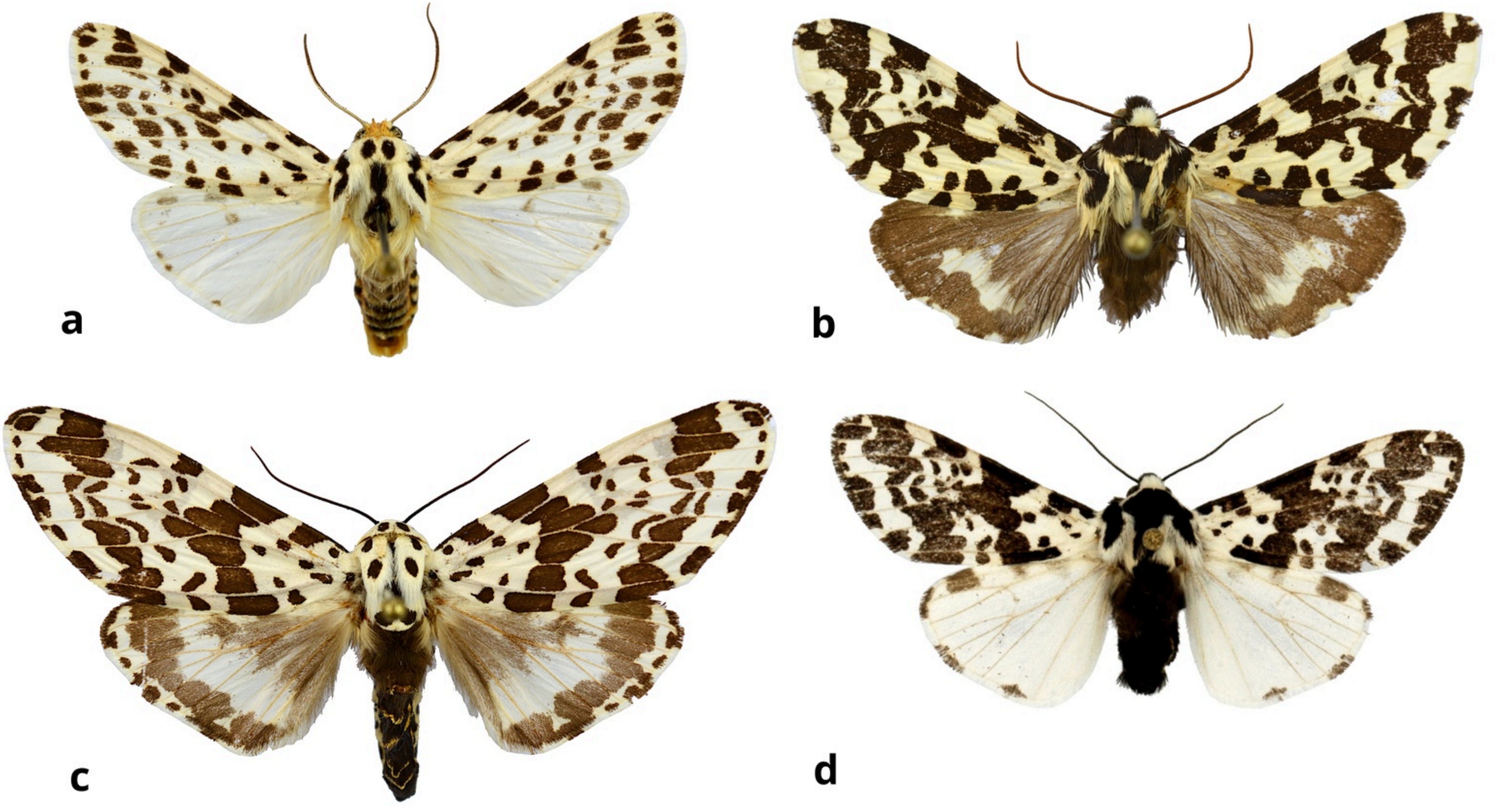

Plate 4. Genus *Hypsocompe* **gen**. **nov**.

a. *Hypsocompe permaculata* (Packard, 1872) ♂. **b**. *Hypsocompe tenebra* (Schaus, 1894) ♂. **c**. *Hypsocompe extrema* (Walker, 1855) ♀. **d**. *Hypsocompe amulaensis* (Druce, 1889) ♂.

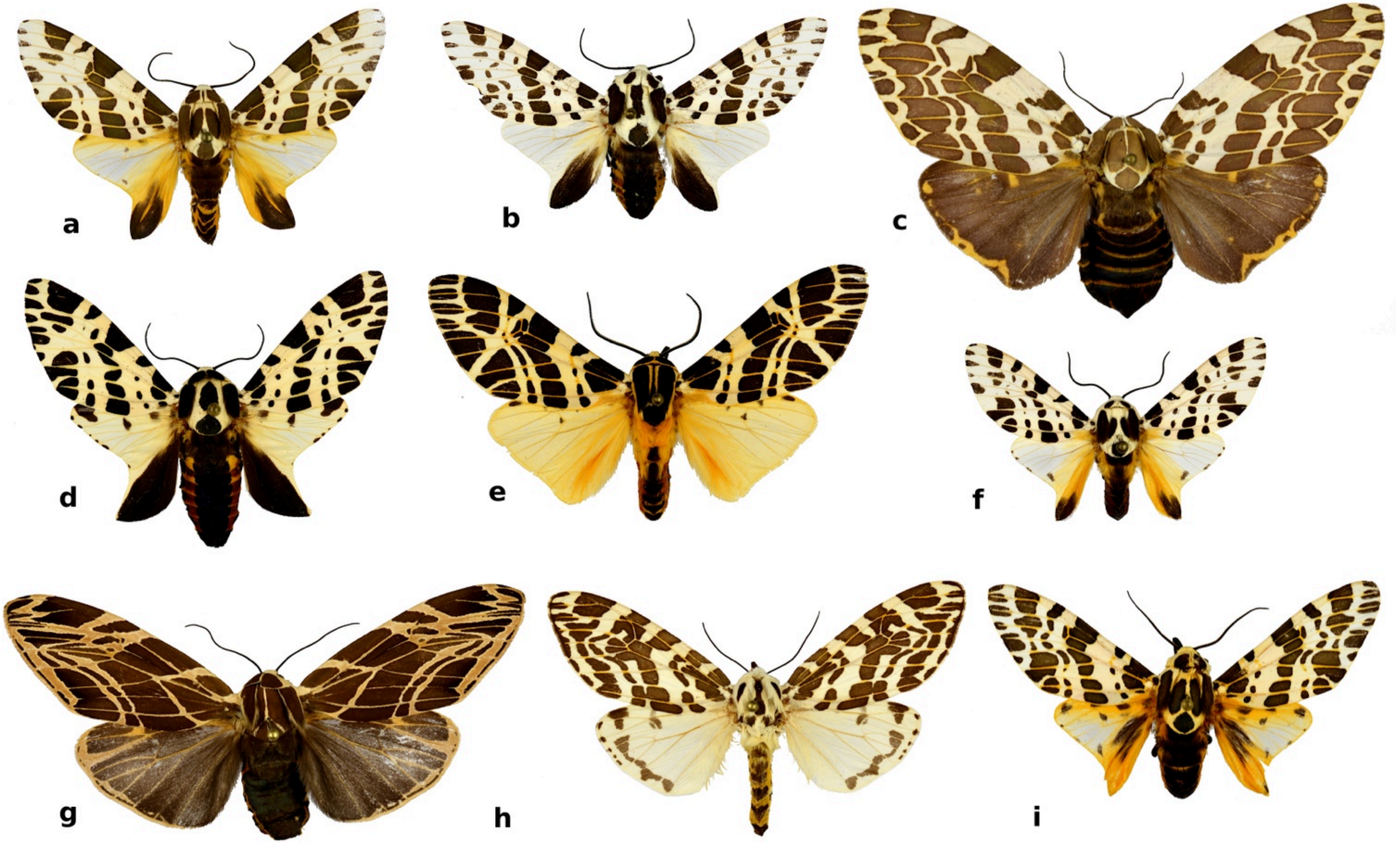

Plate 5. Genus *Oxyptera* **gen**. **nov**.

a. *Oxyptera steinbachi* (Rothschild, 1910) ♂. **b**. *Oxyptera brasiliensis* (Oberthür, 1881) ♂. **c**. *Oxyptera magdalenae* (Oberthür, 1881) ♀. **d**. *Oxyptera guyanensis* (Laguerre, 2009) ♂. **e**. *Oxyptera ochreator* (Felder & Rogenhofer, 1874) ♂. **f**. *Oxyptera leucarctioides* (Grote & Robinson, 1867) ♂. **g**. *Oxyptera unilineata* (Gaede, 1928) ♀. **h**. *Oxyptera ecpantherioides* (Rothschild, 1935) ♀. **i**. *Oxyptera laeta* (Walker, 1855) ♂.

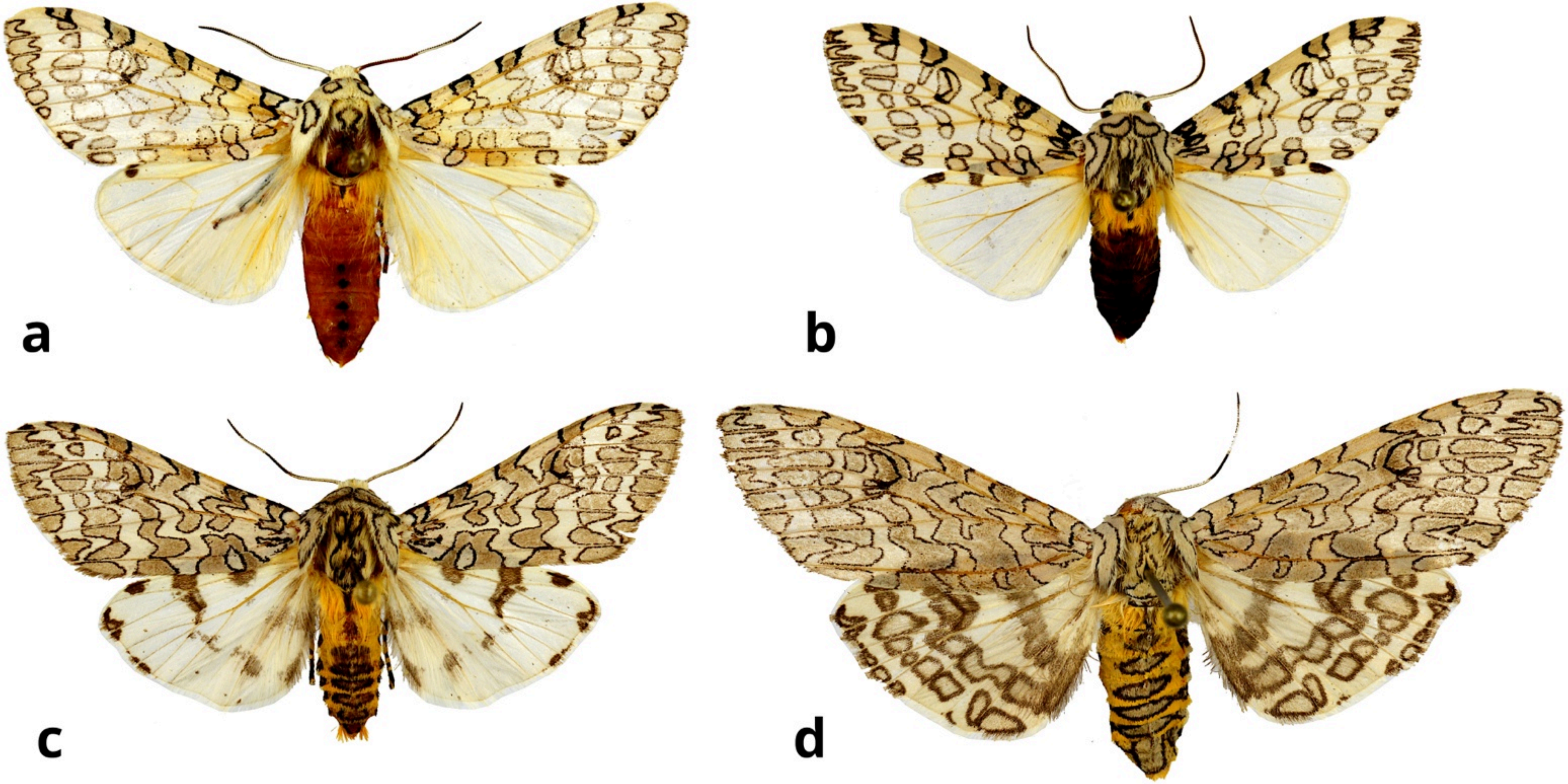

Plate 6. Genus *Stictocompe* **gen**. **nov**.

a. *Stictocompe oslari* (Rothschild, 1910) ♂. **b**. *Stictocompe albescens* (Hampson, 1901) ♂. **c**. *Stictocompe suffusa* (Schaus, 1889) ♂. **d**. *Stictocompe suffusa* (Schaus, 1889) ♀.

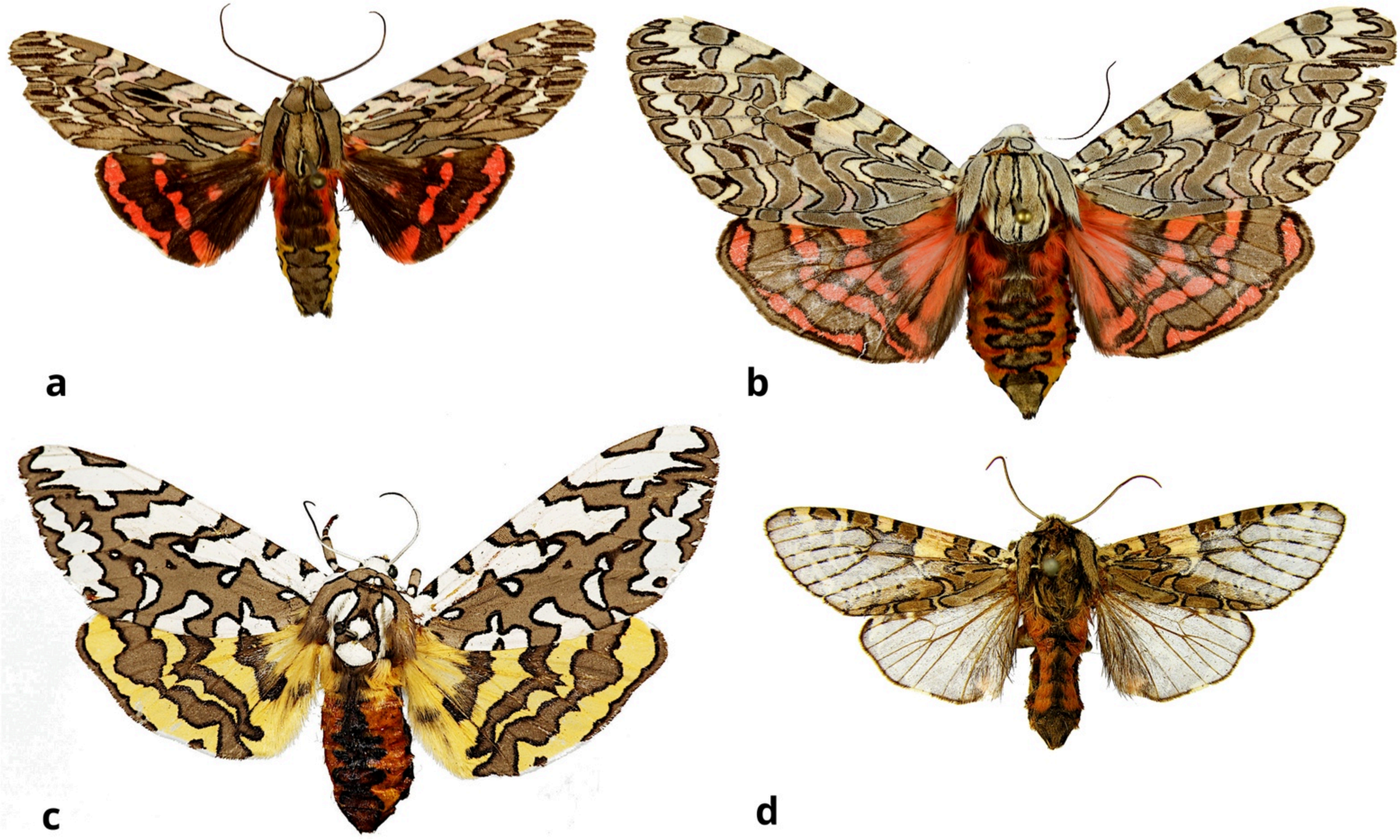

Plate 7. Genus *Arachnis*.

a. *Arachnis aulaea* (Geyer, 1837) ♂. **b**. *Arachnis picta* Packard, 1864 ♀. **c**. *Arachnis zuni* Neumoegen, 1890 ♂. **d**. *Arachnis mishma* Druce, 1897 ♂.

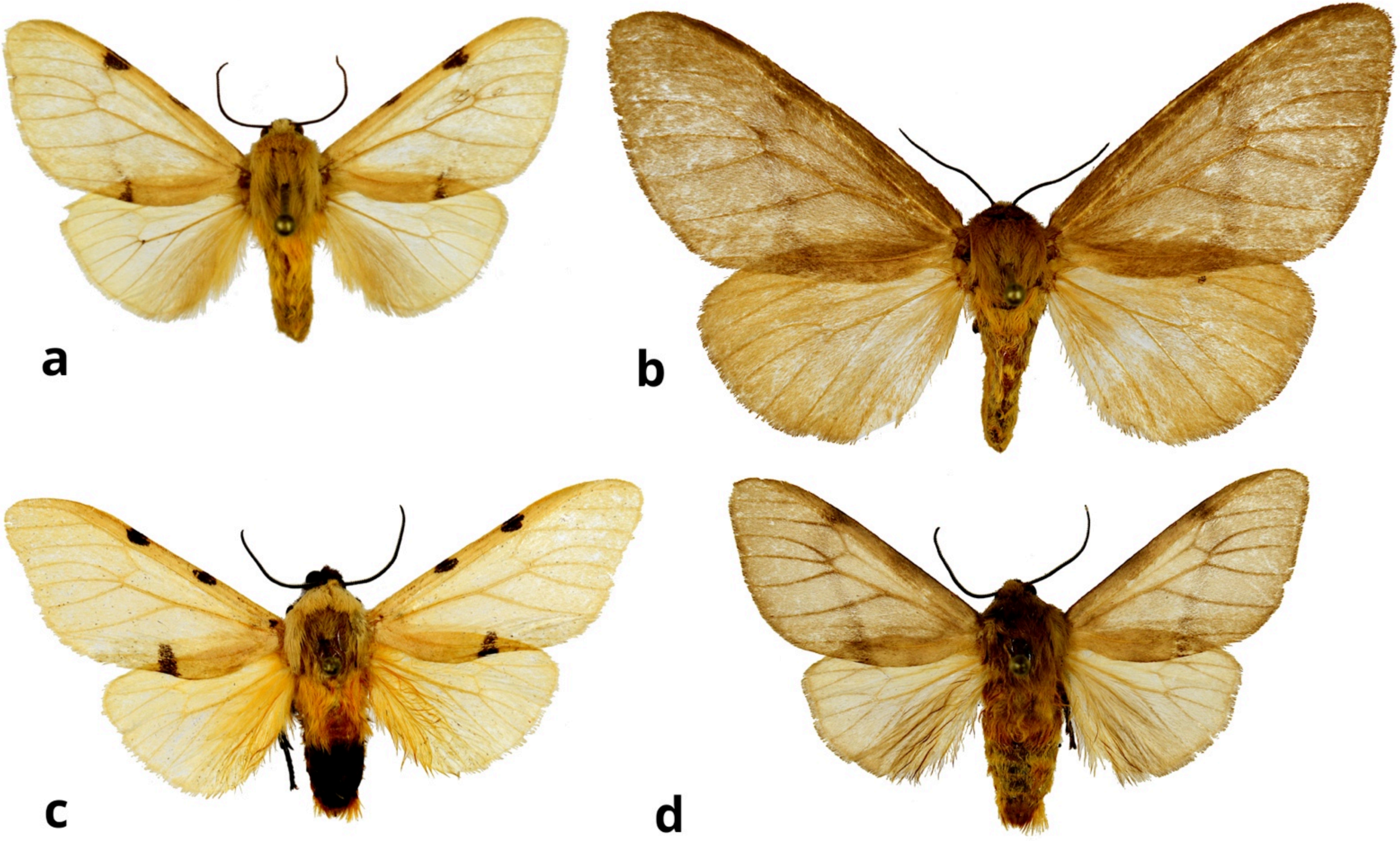

Plate 8. Genus *Testaptera* **gen**. **nov**.

a. *Testaptera testacea* (Rothschild, 1909) ♂. **b**. *Testaptera fuscescens* (Rothschild, 1917) ♀. **c**. *Testaptera turruptianoides* (Rothschild, 1910) ♂. **d**. *Testaptera fuscescens* (Rothschild, 1917) ♂.

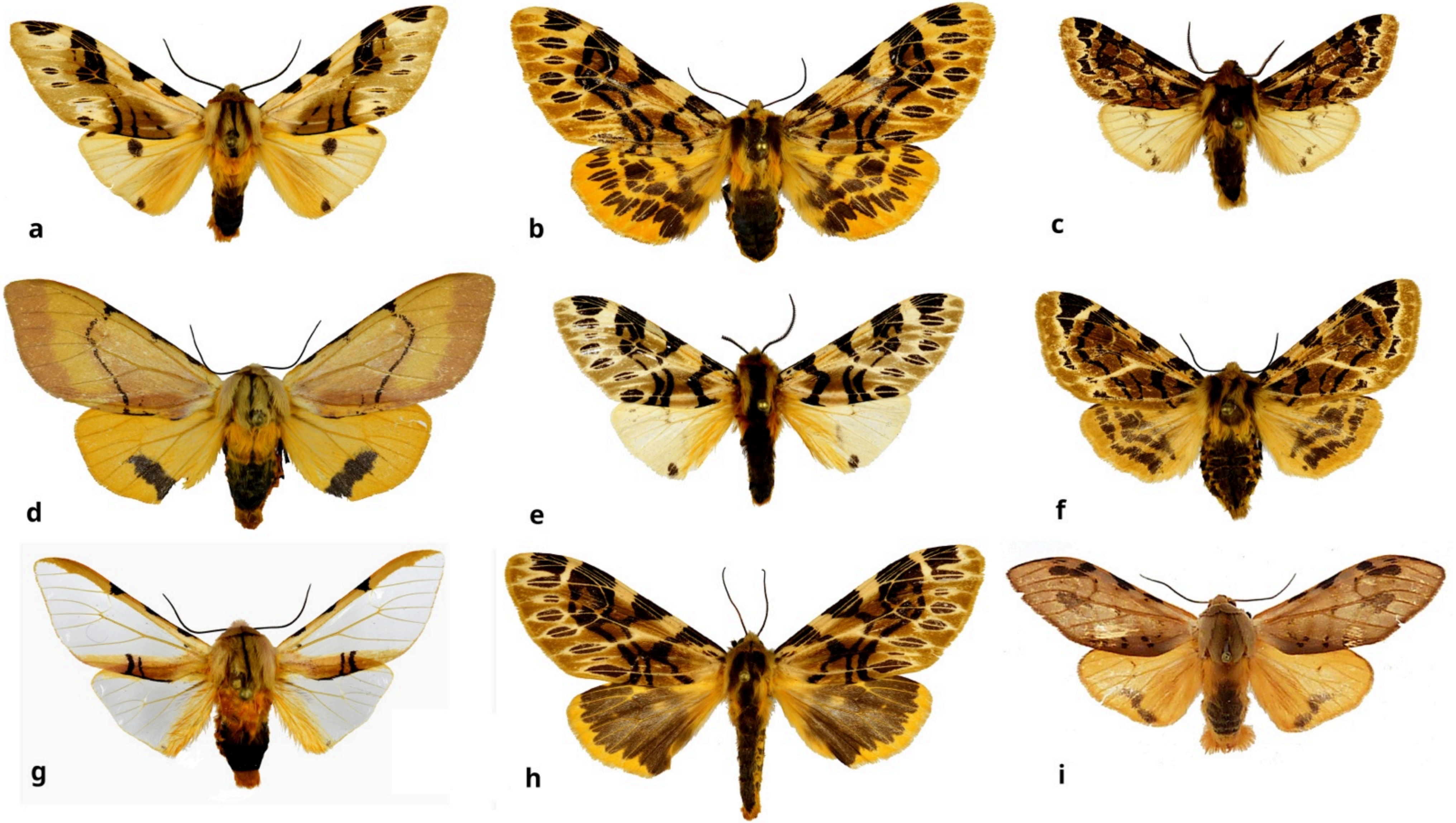

Plate 9. Genus *Fulvocompe* **gen**. **nov**.

a. *Fulvocompe ockendeni* (Rothschild, 1909) ♂. **b**. *Fulvocompe* cf. *neurophylla* (Walker, 1856) ♀. **c**. *Fulvocompe obscura* (Schaus, 1901) ♂. **d**. *Fulvocompe dissimilis* (Schaus, 1896) ♀. **e**. *Fulvocompe* cf. *neurophylla* (Walker, 1856) ♂. **f**. *Fulvocompe obscura* (Schaus, 1901) ♀. **g**. *Fulvocompe dissimilis* (Schaus, 1896) ♂. **h**. *Fulvocompe* cf. *bricenoi* (Rothschild, 1909) ♀. **i**. *Fulvocompe bahiaensis* (Laguerre, 2019) ♂.

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Vives E., 2023. – Especies nuevas o interesantes de longicornios de Filipinas (Pars 24). (Coleoptera, Cerambycidae). *Faunitaxys*, 11(74): 1 – 5. https://doi.org/10.57800/faunitaxys-11(74)

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Faunitaxys

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SOMMAIRE

Révision au niveau générique du genre *Hypercompe* Hübner, [1818] et des genres proches avec la description de nouveaux genres et de nouvelles espèces (Lepidoptera: Erebidae: Arctiinae).

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Generic revision of *Hypercompe* Hübner, [1818] and allied genera with descriptions of new genera and new species (Lepidoptera: Erebidae: Arctiinae).

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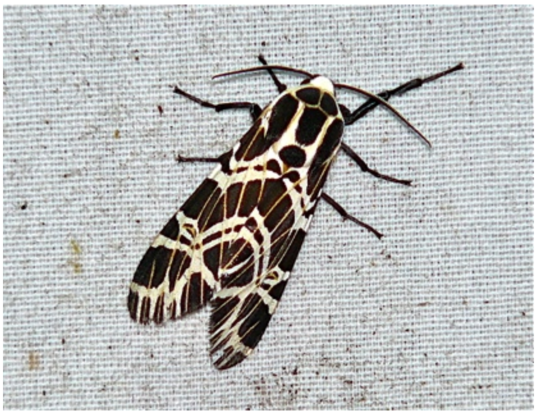

Illustration de la couverture :

A male of *Oxyptera ochreator* (Felder & Rogenhofer, 1874) during a night collecting in Guatemala, Suchitépéquez, Reserva Atitlan, 1570 m. Photo credit: M. Laguerre.

Crédits:

Michel Laguerre : Fig. 1-22, 24-35 ; Pl. 1-9 & couverture.
S. Naumann : Fig. 23.

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